DOES PARENTING PREDICT CHILD RELATIONAL AGGRESSION?

A Thesis Presented

By

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ABSTRACT

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Relational aggression is associated with significant psychosocial consequences for children including anxiety, depression, and delinquency. Few research studies have examined the relationship between parenting and childhood relational aggression. Furthermore, only one previous published investigation has examined the relationship between observed parenting and child relational aggression. The current study examined the relationship between six observed parenting factors (laxness, overreactivity, negative affect, disparagement, problem-solving, and positive emotional support) and teacher-reported relational aggression. Forty-six children, mainly of European-American and Puerto-Rican descent, between 7 and 10 years old ($M = 8.29$, $SD = .75$), participated in the study. Observational data from a discipline (clean-up) task and a problem-solving task were used to assess the six parenting factors. In the overall sample, none of the parenting factors predicted child relational aggression. However, laxness significantly predicted relational aggression for girls. Furthermore, for Puerto Rican children, negative affect and disparagement predicted relational aggression. Future studies should continue to explore the relationship between relational aggression and parenting and attempt to identify protective factors for relational aggression.

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CHAPTER 1

INTRODUCTION

Relational aggression describes behaviors that intend to cause harm by
damaging a relationship or threatening to damage a relationship (Crick et al., 1999).
Common examples of relational aggression include spreading lies, secrets, or gossip
about a friend. Other examples include excluding a friend from a peer group, ignoring a
friend, or threatening to end a relationship if a friend does not do as told. Relational
aggression is used by children as young as three years old and increases as children
enter middle childhood (Crick, Ostrov, & Werner, 2006; Murray-Close, Ostrov, &
Crick, 2007; Ostrov, Woods, Jansen, Casas, & Crick, 2004). Relational aggression is
associated with internalizing problems: teachers endorsed more symptoms related to
anxiety, depression, withdrawal, and somatic complaints for children whose relational
aggression had increased over one year (Murray-Close et al., 2007). Another study
found that relationally aggressive children were more withdrawn and anxious/depressed
a year later compared to their nonrelationally aggressive peers (Crick et al., 2006).
Additionally, that investigation revealed that relationally aggressive children were more
likely to display physical aggression, relational aggression, and delinquency a year later
when compared to nonrelationally aggressive children. Ostrov and colleagues (2004)
found that relational aggression was associated with less prosocial behavior and with
problematic peer relationships. In sum, there is significant evidence relational
aggression is associated with psychological maladjustment in children.

Little is known about the role that parenting plays in the development of children's relational aggression (Ostrov & Crick, 2006). Past research has suggested that children may use skills and strategies from the parent-child relationship in their relationships with peers (Crockenberg & Lourie, 1996; Russell, Pettit, & Mize, 1998). Crockenberg and Lourie (1996) found that children used conflict resolution strategies in their peer relationships that were similar to those used by their parents. Therefore, it is possible that children may learn a great deal about how to interact with their peers from their interactions with their parents. The limited research that does exist supports the idea that parenting may be associated with relational aggression. Casas and colleagues (2006) found that parents whose self-reported parenting styles were authoritative or permissive, or who frequently used psychological control were more likely to have relationally aggressive preschoolers. Another study found that self-reported maternal permissiveness and authoritarianism were related to relational aggression in children ranging from 9 to 11 years of age (Sandstrom, 2007). These studies point to a link between parenting and relational aggression, but more research is needed to identify the parenting practices that are related to childhood relational aggression.

In addition to the discipline practices highlighted by the above studies, parenting practices might also influence relational aggression through their impact on the parent-child relationship. For example, parental empathy, warmth, and encouragement may influence the nature of the parent-child relationship. The parent-child relationship is thought to be especially important as children form peer-relationships because it represents the earliest and most important relationship in most children's lives. Michiels and colleagues (2008) propose that children of unresponsive parents may use relationally aggressive techniques to gain the attention of their parents. Furthermore, it may be that unresponsive or insensitive parents use

relationally aggressive strategies themselves and model this behavior for their children. The limited empirical data are consistent with the idea that parents may model relationally aggressive techniques when interacting with their children. In a recent study by Ostrov and Bishop (2008), parent reports of high parent-child conflict predicted teacher-reported relational aggression, even after controlling for physical aggression and child gender. The proposed investigation will further examine the parent-child relationship through the use of two observational tasks and will explore the relationship between observed parenting and child relational aggression.

Parenting and Physical Aggression

Although relational aggression is a relatively new area of study, the literature on childhood physical aggression is well-established. Parenting practices have been shown to be strongly linked to childhood physical aggression (Benzies, Keown, & Magill-Evans, 2008; Knutson, DeGarmo, Koeppl, & Reid, 2005; Stormshak, Bierman, McMahon, & Lengua, 2000). Although physical aggression and relational aggression are distinct, they do tend to be comorbid, and it is plausible that parenting practices which are linked to physical aggression may also be associated with relational aggression (Casas et al., 2006). The literature linking parenting practices with physical aggression may help generate hypotheses about which parenting practices might be associated with childhood relational aggression. Examining whether these practices are linked with relational aggression would further knowledge about possible influences on relational aggression, and also provide information about the extent to which traditional parent training might be relevant to relational aggression.

Overreactivity. Overreactive parenting, also known as hostile, harsh, or authoritarian parenting, has been linked to physical aggression. Hostile/ineffective parenting describes

behaviors such as getting annoyed with children when they misbehave, praising children infrequently, getting angry when punishing children, and disciplining children repeatedly for the same offense. Benzies and colleagues (2008) found that hostile/ineffective parenting was associated with physical aggression in children. Similarly, Knutson and colleagues (2005) found harsh parenting predicted higher levels of child aggression. Stormshak and colleagues (2000) found that punitive discipline was positively correlated with child physical aggression.

Laxness. Laxness describes behavior including coaxing or begging children to behave, failing to enforce rules, and failing to follow through on requests and commands. Maternal laxness has previously been linked with clinically significant physical aggression in children (O'Leary, 1995). A recent study also found that parental laxness was associated with greater child externalizing behaviors (Guajardo, Snyder, & Petersen, 2009).

Negative affect. Maternal negative affect has previously been shown to be associated with externalizing problems in children. Mullineaux and colleagues (2009) found that maternal negative affect was associated with greater externalizing problems (i.e., aggressive and non-aggressive conduct problems) in children in middle childhood. Similarly, Denham and colleagues (2000) found that parental anger, a significant component of negative affect, significantly predicted externalizing problems in children over time.

Disparagement. Studies have indicated that rejection, criticism, and blaming, three components of disparagement, have been associated with child externalizing behavior problems (Donenberg & Weisz, 1997; Peris & Baker, 2000; Yahav, 2007). In a recent study, children with externalizing problems experienced significantly more maternal and paternal rejection than children without externalizing problems (Yahav, 2007). Previous research has found that maternal criticism was significantly associated with externalizing behavior

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problems in first grade children (Peris & Baker, 2000). Similarly, Donenberg and Weisz (1997) found that parents of children in the high aggression group engaged in significantly more belittling and blaming in a conflict task compared to parents of children in the low aggression group.

Positive emotional support. Parental positive emotional support describes behaviors including warmth, positive regard, affection, empathy, encouragement, acknowledgement of the child's feelings, and interest in the child. Previous studies have shown that parental warmth and positive regard, two components of positive emotional support, may be associated with decreased levels of child physical aggression (Denham et al., 2000; Meteyer & Perry-Jenkins, 2009). Meteyer & Perry-Jenkins (2009) found that children with supportive parents (high on warmth and lacking overreactivity) had lower levels of physical aggression compared to unsupportive and mixed-supportive parents. Denham and colleagues (2000) found that supportive parental presence (i.e., positive regard and emotional support) predicted a decrease in children's disruptive behavior over a four year period.

Problem-solving. Few studies have examined the relationship between the quality of parental problem-solving and child physical aggression. However, one past study revealed that when families were asked to discuss a problem with their child, problem-solving outcome was significantly associated with child externalizing behavior in 4th and 7th grade boys (Forgatch, 1989). Specifically, good problem-solving outcome was negatively related to child aggression. Another study found that high maternal cognitive guidance (i.e., the number of parents' attempts to engage in specific behaviors that cognitively guide the child toward a solution to the task) was associated with greater externalizing problems (Garstein & Fagot,

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2003). Given the conflicting evidence, it is especially important to explore the relationship between aggression and parental problem-solving.

Parenting and Relational Aggression

Some previous studies have indicated that there may be a relationship between parenting and child relational aggression (Brown, Arnold, Dobbs, & Doctoroff, 2007; Casas et al., 2006; Ostrov & Bishop, 2008). However, only a few studies have examined this relationship and among the studies that have been done, only one has used observational data (Brown et al., 2007). In order to clarify the relationship between parenting and relational aggression, more studies which include observational data, children of varying ages, and ethnically diverse samples must be completed. Finally, once the relationship between parenting and relational aggression is clarified, parenting-focused prevention and intervention programs could be developed.

Overreactivity and laxness. Overreactivity and laxness have been previously linked to child relational aggression (Brown et al., 2007; Sandstrom, 2007). Brown and colleagues (2007) found that parental overreactivity was not related to child relational aggression. However, no other studies have examined the relationship between child relational aggression and parental overreactivity. In order to determine if a relationship exists, more studies must be completed. Brown and colleagues (2007) found that parental laxness was positively related to relational aggression for girls but not for boys. Sandstrom (2007) also found a positive association between permissive parenting and relational aggression in girls. Lax parents often coax children to comply with their requests (Sandstrom, 2007). Relationally aggressive children may learn to coax compliance from their peers by threatening to isolate or embarrass a peer. It appears that parental laxness may be related to relational aggression in children but

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further research is needed to clarify the relationship. Additionally, these findings emphasize that parenting practices may differentially affect boys and girls.

Negative affect. Although the literature linking maternal affect and relational aggression is scarce, one recent study identified parental negative affect as the most consistent predictor of relational aggression in children 5 to 8 years of age (Brown et al., 2007).

Positive emotional support. Brown and colleagues (2007) found that maternal positive affect was negatively correlated with relational aggression. Although parental positive emotional support encompasses more than just positive affect, this study suggests the possibility that positive emotional support may be related to lower levels of relational aggression in children.

Problem-solving. Previous research has not examined the relationship between problem-solving and relational aggression.

Disparagement. Previous research has not examined the relationship between disparagement and relational aggression.

Relational Aggression and Ethnicity

Little is known about if or how relational aggression varies across different ethnic groups. However, previous studies have indicated that the relationship between parenting and child physical aggression varies across different ethnic groups (Deater-Deckard, Dodge, Bates, & Pettit, 1996; Horn, Joseph, & Cheng, 2004). Therefore, it is possible that the relationship between parenting and relational aggression may also be moderated by ethnicity. Some previous studies have failed to find ethnic differences in levels of relational aggression between European-American and Latino children (Brown et al., 2007). However, Brown and colleagues (2007) did find that the *relationship* between parenting and relational aggression

differed as a function of maternal ethnicity: for European-American children, laxness, overreactivity, and negative affect predicted relational aggression, but these predictors were not associated with relational aggression in Puerto-Rican children. Recently, researchers have begun to examine predictors and protective factors of relational aggression among urban African-American middle and high school children (Murray, Howard, Cheng, & Simons-Morton, 2010; Waasdorp & Bradshaw, 2009). However, few studies have examined relational aggression in younger children from diverse ethnic backgrounds. Additionally, very few studies have directly examined relational aggression in Latino children. The proposed investigation will examine if the relationship between parenting and relational aggression differs between Puerto Rican and European-American children.

Relational Aggression and Gender

The relationship between relational aggression and child gender has been shown to be complex. Relational aggression has consistently been found to be more common in females than males (Brown et al., 2007; Murray-Close et al., 2007). Parenting has also been found to be differentially related to relational aggression in boys and girls (Casas et al., 2006). Casas and colleagues (2006) found that for girls, there was a positive relation between authoritative and permissive maternal and paternal parenting styles and relational aggression. However, for boys only maternal permissiveness correlated with relational aggression. Insecure maternal attachment was also correlated with relational aggression for girls and not for boys (Casas et al., 2006). Inter-parental conflict strategies have also been shown to differentially predict relational aggression in girls and boys (Underwood, Beron, Gentsch, Galperin, & Risser, 2008). Specifically, mothers who used negative inter-parental conflict resolution strategies (i.e., triangulation, stonewalling, physical aggression, and verbal aggression) were more likely

to have relationally aggressive girls, whereas this relationship was not observed for boys (Underwood et al., 2008). Another study found that maternal laxness was positively correlated with relational aggression for girls but there was no significant correlation for boys (Brown et al., 2007). In sum, previous literature suggests that the relationship between parenting and relational aggression may be stronger for girls than boys. Therefore, it is important to continue to explore possible gender differences in relational aggression in children.

Observational Studies Examining Relational Aggression

There have been very few observational studies in the relational aggression literature (Ostrov & Crick, 2006). As described above, some research has examined the relationship between self-reported parenting and relational aggression, but significant limitations remain in this understanding. We cannot be sure that parents accurately reported their parenting practices. Furthermore, the information gained from parenting questionnaires are limited by the questions asked; parenting measures tend to gather global information. Observational data could provide more information about how parents behave with children in specific situations. Only one published investigation (Brown et al., 2007) has examined observed parent-child interactions and their relationships with peer-directed relational aggression, but only within the context of a discipline situation (clean-up task), and only in five to eight-year-old children. As mentioned above, they found that positive maternal affect predicted less relational aggression while negative maternal affect predicted more relational aggression. For girls, maternal laxness was associated with higher relational aggression. For European-American children, laxness, overreactivity, and negative affect predicted relational aggression but these predictors were not significant for Puerto-Rican children.

The present study will extend the study conducted by Brown et al. (2007) by following the same children approximately two years later, again using the clean-up task, with the addition of a problem-solving task to provide additional information about how children and parents resolve a disagreement. Since most children were between the ages of eight and nine years old at the time of the later observation, they were likely able to collaboratively discuss and solve problems, making the task an especially appropriate measure of how parents and children handle conflict. While the clean-up task requires that the parent instruct the child to complete a task, the problem-solving task requires that the parent and child work together towards a solution, making the problem-solving task particularly relevant to understanding how parents and children relate to each other.

The Current Investigation

The current investigation built on the previous study by Brown et al. (2007) by examining whether observed parenting predicts peer-directed relational aggression in 7-10 year old children drawn from the same sample. I hypothesized that parental laxness, parental overreactivity, parental negative affect, and parental disparagement would be associated with greater relational aggression in children. I hypothesized that parent-child interactions characterized by high parental positive emotional support and problem-solving would be associated with low peer-directed relational aggression in children. Finally, possible gender and ethnic differences in the relationship between parenting and relational aggression were explored.

CHAPTER 2

METHOD

Participants

 Forty-six children, their mothers, and their teachers participated in this study as part of a larger project. Families were initially recruited from eighteen preschool classrooms at seven child-care centers in the Springfield, Massachusetts area. All of these centers provided full-day care. Six of the centers were run privately or by local organizations, and one was a Head Start Center. Five of these child-care centers chiefly served economically disadvantaged families from ethnic minority backgrounds. The other two centers mainly served European-American families of higher socioeconomic status. At the time of the assessments used in the current study, children ranged in age from 7 to 10 years old, ($M = 8.29$, $SD = .75$). The sample included 22 males (47.8 percent) and 24 females (52.2 percent). According to parent report, 24 of the children were described as European-American (52.2 percent), 16 as Puerto-Rican (34.8 percent), 5 as African-American (10.9 percent), and 1 as Other (2.2 percent). Fifty-four percent of the sample attended a low SES center and 46 percent of the sample attended a high SES center.

 Mothers were initially invited to participate in a study of child development through a letter sent home to all families at their child-care center. As part of that project, they attended a meeting at school and filled out questionnaires. The same percentage of invited families agreed to participate from low-SES versus high-SES centers (62 percent). Three cohorts were recruited in three separate years. In the third year of the project, additional funding was obtained to collect home visit observations as part of the follow-up data. The present study

presents cross-sectional data from that follow-up assessment. Mothers who participated in the initial stage of the study were contacted and invited to participate in this later stage of the project. Because funding for the home visits was obtained partway through the larger project, and three different cohorts of children were involved, timing for these assessments differed somewhat across children. In addition, we had lost contact with some families, and thus the participation rate was somewhat low: the 46 families of the current study were drawn from 79 families who had completed early and late-year assessments in the first year of the study (58 percent). Families in the current study did not differ significantly on any demographic variables or preschool levels of aggression from families who participated in the original assessment. Puerto-Rican participants reported being comfortable completing questionnaires in English, and Spanish-speaking researchers were available to answer questions.

Procedure

Parenting observations. Home visits were conducted that included videotaping interactions of the mothers and their children completing a clean-up and a problem-solving task. A small video camera was placed across the room in the least intrusive location possible, and the experimenter monitored the interaction by listening from a nearby room, and remained out of sight from the dyad as much as possible. Parents were told that we were trying to learn more about how parents handle challenging aspects of parenting. Children were told that the taping was to learn about how mothers and children do things together, and that the researcher would not be able to talk during the taping. A full protocol is available upon request from the authors. For the clean-up task, the researcher took toys from a container and showed them to the child. The researcher scattered the toys, left the room, and allowed the child to play with the toys for approximately 3 min. Then the parent was asked to have the

child clean up the toys as independently as possible. The task was considered complete when the child had cleaned up all of the toys, or after 10 min, whichever came first. This approach has been successfully used in many previous studies (e.g., Arnold, O'Leary, Wolff, & Acker, 1993; Arnold & O'Leary, 1995; Brown et al., 2007; Mahoney, Boggio, & Jouriles, 1996; Olson, Ceballo, & Park, 2002; Powers & Roberts, 1995; Seipp & Johnston, 2005; Slep & O'Leary, 1998). The validity of this approach is supported by findings that observations relate to self-reported parenting (e.g., Arnold et al., 1993) and expected child outcomes (e.g., Arnold et al., 1993; Arnold & O'Leary, 1995; Seipp & Johnston, 2005; Slep & O'Leary, 1998).

The home visit also included videotaping interactions of mothers and their children completing a problem-solving task. This task has been used with older children successfully in previous research studies (e.g., Ammerman, Van Hasselt, & Hersen, 1991; Donenberg & Weisz, 1997; Gordon, Burge, Hammen, & Adrian, 1989; Siqueland, Kendall, & Steinberg, 1996). Parents and children were told that we were interested in learning more about how parents and children talk about things that are easier to discuss and thing that are harder to discuss. They were first asked to discuss their plans for the next upcoming weekend for approximately 3 min. This portion of the task was designed to help participants become comfortable talking in front of the camera, and was not used for the present study. Parents and children were then asked to discuss a problem that the parent had previously identified as a source of common disagreement (e.g., watching too much television or fighting with siblings) for 5 to 7 min. They were asked to discuss the problem so both parent and child understood it and to work towards a solution. The task was considered complete when the discussion had ended or after 7 min, whichever came first. The concurrent validity of this assessment

approach is supported by findings that parenting during this task is related to child and parent psychopathology (Donenberg & Weisz, 1997; Gordon et al., 1989).

Observational coding. The coding system for this study was based on existing coding systems (e.g., Arnold et al., 1993). Five undergraduate research assistants were trained for approximately 8 hr per week for 8 weeks. After group training and practice, individual coding with tapes from a different study was continued, with feedback, until agreement was approximately 90 percent on interval codes and within one point on global codes. Each of the videotapes was then independently coded by two research assistants. Laxness and overreactivity were rated globally over the course of the clean-up task. Negative affect was coded for its presence or absence in 30-s intervals in the clean-up task. Positive emotional support, problem solving, and disparagement were rated globally over the course of the problem-solving task.

Measures

Relational aggression. Teachers completed the Social Behavior Teacher-Report Scale (Crick, Casas, & Mosher, 1997). Examples of the six items which assess relational aggression include "This child tries to get others to dislike a peer (e.g., by whispering mean things about the peer behind the peer's back)", and "This child tells a peer they won't be invited to their birthday party unless he/she does what the child wants." Response options for each item range from 1 (never or almost never true) to 5 (always or almost always true); scores represent a sum of the six items.

Overreactivity. Overreactivity was defined as how irritated, angry, frustrated, annoyed, or harsh the parent seemed (e.g., a parent saying "I'm so angry at you right now;" a parent yelling at a young child for not being able to follow multiple directions given over a

short period of time; a parent losing her temper). Overreactivity also included having unreasonable expectations for the child. Overreactivity was rated globally on a scale of 1–7, with 1 representing low overreactivity. The intraclass correlation coefficient for overreactivity was .64, so results from this variable should be cautiously interpreted.

Laxness. Laxness was defined as not enforcing rules, not following through on requests and commands, and coaxing or begging the child to behave (e.g., A parent ignoring the fact that the child is not cleaning up, after they have given the child the command "clean up"; a parent pleading "Please clean up the toys, okay?"). Laxness was rated globally on a scale from 1 to 7, with 1 representing low laxness. The intraclass correlation coefficient for laxness was .74.

Negative affect. Negative affect was coded if facial expressions, body movements, language, or sounds indicated an expression of negative emotions (e.g., sadness, anger, frustration, frowning, etc.). Negative affect was coded as present or absent per 30 second interval. Scores for each category represent the percent of intervals in which the parent displayed negative affect. The intraclass correlation coefficient for negative affect was .73.

Positive emotional support. Positive emotional support was coded if verbal and non-verbal communication expressed warmth, positive regard, affection, empathy, encouragement, acknowledgement of child's feelings, and interest in the child. Positive emotional support included verbal expressions of empathy, reassurance, and praise, as well as non-verbal physical closeness and open body language. Positive emotional support was rated globally on a scale from 1 to 7, with 1 representing low positive emotional support. The intraclass correlation coefficient for positive emotional support was .68, so results from this variable should be cautiously interpreted.

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Disparagement. Disparagement was coded if verbal and non-verbal communication expressed criticism, blaming, rejection, disapproval, or cold behavior towards the child. Disparagement could be expressed verbally with a negative or sarcastic tone, mimicking and threatening the child. Disparagement could be expressed non-verbally by leaning away from the child. Disparagement was rated globally on a scale from 1 to 7, with 1 representing low disparagement. The intraclass correlation coefficient for disparagement was .62, so results from this variable should be cautiously interpreted.

Problem-solving. Problem-solving describes how well the parent actively assisted the child in effective problem-solving, modeled effective strategies and/or promoted effective use of any or all of the following techniques: identify the problem, gather possible solutions, select a solution, develop and evaluate a plan for implementation, and use disagreement to inform definition and resolution of the problem. Problem-solving was rated globally on a scale from 1 to 7, with 1 representing poor problem-solving. The intraclass correlation coefficient for problem-solving was .81.

Socioeconomic status (SES). SES was coded as 0 for families from the centers that served more affluent communities and 1 for families from centers in lower-income communities. The decision to dichotomize SES was made to be consistent with previous studies from this sample, because SES was relatively homogenous within centers, and to limit missing data, because some families chose not to answer questions of income and education. SES and ethnicity were confounded in the current sample; 90% of children from high SES centers were European American while only 5% of children from high SES centers were Puerto Rican.

CHAPTER 3

RESULTS

Analytic Plan

Initially, six separate regression analyses were performed to determine the relationship between each of the six predictor variables and relational aggression, controlling for child gender. Next, I planned to regress relational aggression onto the predictor variables that were found to significantly predict relational aggression in the above mentioned analyses in a simultaneous multiple regression to evaluate the predictive power of each significant predictor controlling for the others. This analysis was not conducted because of the lack of significant predictors for the general sample (see below).

Next, the initial six regression analyses were repeated, for exploratory purposes, with possible interactions between gender and each predictor evaluated. Finally, possible interactions between ethnicity (European American v. Puerto Rican) and each predictor were similarly evaluated. Standardized regression weights are reported for all analyses.

Descriptive Statistics

The means and standard deviations of the study variables are presented in Table 1, for the overall sample, by gender, and by ethnicity. Girls displayed more relational aggression than boys, $t(44) = -2.09$, $p = 04$. Relational aggression did not differ by ethnicity. European-American parents displayed more problem-solving behavior, $t(37) = 4.63$, $p = .001$, and positive emotional support, $t(38) = 2.44$, $p = .02$, than Puerto Rican parents. However, it is important to remember that SES and ethnicity were confounded in the current sample so these

findings may also reflect differences in SES. Correlations between study variables are presented for the whole sample in Table 2, by ethnicity in Table 3, and by gender in Table 4.

Predictors of Relational Aggression

Overreactivity. Parental overreactivity did not significantly predict relational aggression. Neither gender nor ethnicity significantly moderated the relationship between overreactivity and relational aggression.

Laxness. Parental laxness did not significantly predict relational aggression. Gender significantly moderated the relationship between parental laxness and relational aggression, β = 3.02, SE = .81, p = .001. Laxness was positively associated with relational aggression for girls (r = .59, p = .01) while this correlation was negative for boys (r = -.31, ns). Ethnicity did not significantly moderate the relationship between laxness and relational aggression.

Negative affect. Parental negative affect did not significantly predict relational aggression. Gender did not significantly moderate the relationship between negative affect and relational aggression. Ethnicity moderated the relationship between negative affect and relational aggression at a level that approached, but did not reach, significance, β = 2.08, SE = 1.11, p = .07. Parental negative affect was positively associated with relational aggression for Puerto Rican children (r = 0.54, p = .05) while this correlation was not significant for European American children (r = -.13, ns).

Positive emotional support. Parental positive emotional support did not significantly predict relational aggression. Neither gender nor ethnicity significantly moderated the relationship between positive emotional support and relational aggression.

Problem-solving. Parental problem-solving did not significantly predict relational aggression. Neither gender nor ethnicity significantly moderated the relationship between problem-solving and relational aggression.

Disparagement. Parental disparagement did not significantly predict relational aggression. Gender did not significantly moderate the relationship between disparagement and relational aggression. Ethnicity significantly moderated the relationship between disparagement and relational aggression, $\beta = 1.92$, $SE = 0.90$, $p = .04$. Disparagement was positively associated with relational aggression for Puerto Rican children ($r = .57$, $p = .05$) while this correlation was negative for European-American children ($r = -.19$, ns).

CHAPTER 4

DISCUSSION

The current study examined the relationship between relational aggression and six observed parenting factors. Strengths of the study included observational parenting data and an ethnically diverse sample, including Puerto Rican families. The current study also included a problem-solving task that has not previously been used in this context. For the overall sample, none of the parenting factors significantly predicted relational aggression. Overall relationships between parenting factors and relational aggression may not have been found because of differences as a function of gender and ethnicity.

Our findings support previous research reporting that girls exhibit more relational aggression than boys (Brown et al., 2007; Murray-Close, 2007). Gender also moderated the relationship between parental laxness and relational aggression. Specifically, laxness was positively associated with relational aggression for girls but not for boys. In previous studies, laxness or permissive parenting has also been found to be positively related to relational aggression in girls (Brown et al., 2007; Casas et al., 2006; Sandstrom, 2007). Therefore, the present investigation provides further evidence for a relationship between lax parenting and relational aggression in girls. It is likely that lax parenting models relationally aggressive behaviors. Lax parents often coax and cajole children to comply (Sandstrom, 2007). Relationally aggressive children may learn to coax compliance from their peers, for example by threatening to withdraw positive affection. Lax or permissive parents also tend to easily give in to their children's demands which may lead children to believe that their peers should also yield to their demands. What is less clear is why parental laxness was associated with relational aggression for girls and not boys; the parents in our study were all mothers, and it is

possible that children are more likely to model the behavior of their same-gender parent. Alternatively, girls may be more relationally oriented than boys, and may model relationally aggressive behaviors more readily for this reason. Finally, it is also possible that parental laxness may lead to physical aggression in boys and relational aggression in girls, given that physically aggressive boys are more likely to have lax or permissive parents (e.g., Underwood, Beron, & Rosen, 2009).

Ethnicity moderated the relationship between some parenting factors and relational aggression. Disparagement was positively associated with relational aggression for Puerto Rican children but not for European American children. Ethnicity also moderated the relationship between negative affect and relational aggression. Parental negative affect was positively associated with relational aggression for Puerto Rican children while this relation was not significant for European American children. This finding is in contrast to that of Brown and colleagues (2007) who found that laxness predicted relational aggression in European American children not Puerto Rican children. This is particularly surprising given that most of the children in the current study were also in Brown et al.'s study. It is possible that these inconsistencies are related to the differences in child age between the studies. The children in the current investigation were between 7 and 10 years of age while Brown and colleagues (2007) examined children who were between 5 and 8 years of age. It may be that Puerto Rican parents are more likely to express negative emotions with older children. Calzada and Eyberg (2002) found that Puerto Rican mothers of children between 2 and 6 years old had fewer positive and more negative interactions with children as they got older. Therefore, it is possible that the significant relationships between disparagement and negative affect, and relational aggression in Puerto Rican children reflects a tendency for Puerto Rican

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mothers to express more negativity as their children age. Alternatively, the current investigation may have failed to find a relationship between negative affect and relational aggression for European American children because the European American parents in the current sample expressed lower levels of negative affect than parents in the Brown and colleagues (2007) study. European American parents in the current study expressed negative emotions in 6.5% of their interactions with their child while European American parents in the Brown and colleagues (2007) study expressed negative emotions in 10% of their interactions.

Contrary to the hypotheses, problem-solving and positive emotional support did not predict relational aggression. These two variables had not previously been examined in the relational aggression literature. However, previous studies have shown that parental warmth and positive regard may be associated with decreased levels of child physical aggression (Denham et al., 2000; Meteyer & Perry-Jenkins, 2009). It is possible that positive parenting behaviors have less of an impact on relational aggression than negative parenting behaviors. However, given the importance of relational aggression, it is important to continue to explore possible protective factors.

There were several limitations to this study. First, our sample size was small ($n = 46$). This may have made it difficult for us to find significant relationships, especially for analyses considering children by ethnicity or gender. Further research should recruit a larger sample. Second, our relational aggression measure was solely based on teacher-report. Other studies have employed peer nomination techniques and this method might be helpful as an additional assessment of relational aggression, since it is often peer-directed (Crick et al., 2006; Murray-Close et al., 2007). Finally, our Latino sample was primarily composed of children of Puerto

Rican descent. Latino cultures are very diverse and we cannot make generalizations about relational aggression in Latino children without sampling from a greater variety of Latino cultures. Future studies should aim to recruit Latino children from various cultural backgrounds, as well as other ethnic and cultural groups. It is also important to note that ethnicity and SES were confounded in the current sample. The majority of Latino children were economically disadvantaged children while the majority of European American children were from higher SES families. Future research should investigate if the observed differences in the relationship between relational aggression and parenting are influenced by ethnicity or SES.

Another limitation is that teacher-reported relational aggression values were low. Each child had the possibility of receiving a summed score between 6 and 30 but only seven children received scores above 10, and the highest score in the sample was 19. Since most children were low on relational aggression, our ability to detect significant differences may have been limited by a restricted range of relational aggression scores. Additionally, our intraclass correlation coefficients for our parenting predictors were somewhat low. Our ability to detect significant relationships between the predictors and relational aggression may have been compromised by these low intraclass correlation coefficients.

Future studies should continue to explore the relationship between ethnicity and relational aggression. One previous study examined parenting predictors of relational aggression in urban African American middle school children (Murray et al., 2010), however, only one previous study (Brown et al., 2007) has examined these relationships in Latino children of any age. Future studies should include samples with more children higher in relational aggression in order to better understand the relationship between relational

aggression and parenting. It would also be helpful to gather parent-reports of relational

aggression to investigate if parents whose parenting practices are associated with relational

aggression recognize relational aggression in their children.

The current study provides some support for the importance of parenting practices to

relational aggression. Although relational aggression is often peer-directed, children may

learn relationally aggressive strategies from their interactions with their parents. Therefore,

future research should focus on developing parenting interventions to reduce relationally

aggressive behavior in children. Previous studies have examined the effectiveness of

parenting interventions for reducing child physical aggression (Brotman et al., 2009).

Brotman and colleagues (2009) found that increases in responsive and stimulating parenting

predicted lower levels of child physical aggression. Since an intervention targeting parenting

practices has been proven to lower child physical aggression, it is plausible that once

parenting factors are indentified that correlate with relational aggression, similar interventions

could be designed for children high in relational aggression. The current study points to the

importance of considering gender, ethnicity, and other cultural and contextual factors as the

relationship between parenting and relational aggression is investigated. Relational aggression

has serious consequences for its perpetrators and victims (Crick et al., 2006; Murray-Close et

al., 2007; Ostrov et al., 2004), and is likely influenced at least to some degree by parenting

factors. The current study provides one step in understanding the relationship between

parenting and relational aggression. We hope that such research will eventually help in the

development of effective relational aggression intervention strategies.

Table 1

Means for Primary Study Variables

Variables	Total (n = 46)	G (n = 24)	B (n = 22)	PR (n = 16)	EA (n =24)
Relational aggression	7.65 (3.13)	8.54 (3.88)	6.68 (1.61)	6.94 (2.27)	7.42 (3.04)
Overreactivity	2.53 (1.30)	2.82 (1.46)	2.21 (1.06)	2.63 (1.20)	2.52 (1.44)
Laxness	2.94 (1.58)	2.78 (1.47)	3.12 (1.72)	2.91 (1.49)	3.02 (1.50)
Negative affect	5.19 (8.70)	6.79 (10.90)	3.43 (5.09)	4.49 (6.11)	6.48 (10.74)
Disparagement	3.11 (1.50)	3.17 (1.61)	3.05 (1.41)	3.53 (1.43)	2.77 (1.54)
Emotional support	4.69 (1.47)	4.73 (1.44)	4.64 (1.53)	4.00 (1.38)	5.15 (1.50)
Problem-solving	4.05 (1.75)	4.15 (1.81)	3.93 (1.73)	2.77 (1.27)	4.98 (1.56)

Note. G = Girls, B = Boys, PR = Puerto-Rican, EA = European American. Standard deviations are in parentheses. Relational aggression means reflect a summed score ranging from 6-30. Overreactivity, laxness, disparagement, positive emotional support, and problem solving scored on a scale from 1-7. Negative affect score represents the percent of intervals in which the parent displayed negative affect.

Table 2

Correlations Among the Main Study Variables

Variables	1	2	3	4	5	6	7
1. Relational aggression	-						
2. Overreactivity	.07	-					
3. Laxness	.24	.01	-				
4. Negative affect	-.02	.56*	-.09	-			
5. Disparagement	-.01	.26	-.36*	.32*	-		
6. Positive emotional support	-.05	-.17	.14	-.16	-.82**	-	
7. Problem-solving	-.11	-.11	-.06	-.01	-.57**	.67**	-

* p < .05, ** p < .01

Table 3

Correlations Among the Main Study Variables by Ethnicity

European-Americans (n = 24)	1	2	3	4	5	6	7
1. Relational aggression	-						
2. Overreactivity	-.04	-					
3. Laxness	.20	.22	-				
4. Negative affect	-.13	.69**	-.14	-			
5. Disparagement	-.19	.36	-.25	.40	-		
6. Positive emotional support	.00	-.22	.11	-.25	-.87**	-	
7. Problem-solving	-.03	-.10	-.09	-.07	-.64**	.75**	-

Puerto Rican (n = 16)							
1. Relational aggression	-						
2. Overreactivity	.44	-					
3. Laxness	-.04	-.21	-				
4. Negative affect	.54*	.20	.02	-			
5. Disparagement	-.57*	.01	-.39	.34	-		
6. Positive emotional support	-.28	.00	.15	-.15	-.78**	-	
7. Problem-solving	-.32	-.08	-.22	-.18	-.34	.38	-

* $p < .05$, ** $p < .01$

Table 4

Correlations Among the Main Study Variables by Gender

Girls (n = 24)	1	2	3	4	5	6	7
1. Relational aggression	-						
2. Overreactivity	-.07	-					
3. Laxness	.59**	.01	-				
4. Negative affect	-.10	.62**	-.14	-			
5. Disparagement	-.09	.18	-.45*	.22	-		
6. Positive emotional support	-.09	-.03	.20	-.04	-. 81**	-	
7. Problem-solving	-.15	-.01	.00	.12	-.62**	.78**	-

Boys (n = 22)							
1. Relational aggression	-						
2. Overreactivity	.30	-					
3. Laxness	-.31	.06	-				
4. Negative affect	.07	.33	.05	-			
5. Disparagement	.16	.39	-.26	.65**	-		
6. Positive emotional support	-.03	-.39	.09	-.50*	-.85**	-	
7. Problem-solving	-.14	-.34	-.11	-.41	-.52*	.58**	-

* p < .05, ** p < .01

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