

THE PENNSYLVANIA STATE UNIVERSITY
SCHREYER HONORS COLLEGE

DEPARTMENT OF HUMAN DEVELOPMENT AND FAMILY STUDIES

PREVENTATIVE EFFECTS ON CHILD BEHAVIOR: EXAMINING THE RELATIONSHIP
BETWEEN INDIVIDUAL PARENTING, COPARENTING, AND CHILD BEHAVIORAL
OUTCOMES WITH FAMILY FOUNDATIONS PROGRAM

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SPRING 2018

A thesis
submitted in partial fulfillment
of the requirements
for a baccalaureate degree
in Biology
with honors in Human Development and Family Studies

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ABSTRACT

The quality of parenting contributes to early childhood development; however, making the transition to parenting can be one of the most challenging times on both the couple and the child. The purpose of this study is to understand the effects of the quality of individual parenting and coparenting on child behavioral patterns, while also taking into account the parent's distress on this relationship. Furthermore, the study addresses whether the Family Foundations prevention program significantly impacts the intervention group's parenting techniques and/or child's behavioral patterns.

To answer these questions, a sample of 399 heterosexual couples who were expecting their first child were recruited. The sample was randomly selected into one of two conditions- intervention program or control. Couples assigned to the intervention program attended five classes pre-birth and four classes post-birth to learn coparenting techniques and first-time parenting information provided by local hospitals. The couples in the control condition received materials in the mail that discussed selecting quality child care. Both groups completed questionnaires and recorded home visits 10 months post-birth to gather data on the home life.

Based on correlational analyses, the results indicate that general parent distress is associated with parenting techniques and child behavioral patterns. This demonstrates that individual characteristics of the parent can impact the quality of parenting and resulting behavioral patterns of the child. Moreover, both individual parenting and coparenting hold an association with child behavioral patterns. Coparenting demonstrated more significant associations with child behavior than individual parenting did, as expected. Lastly, one-way ANOVA tests found many significant differences between intervention and control groups'

scores on parenting quality variables. These differences validate that Family Foundations program's purpose in improving coparenting techniques is present.

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ACKNOWLEDGEMENTS

There are many people I want to acknowledge for helping me throughout this process. Thank you to Dr. Mark Feinberg for sharing his expertise in this subject matter and spending time helping me write this paper. Thank you to Michelle Hostetler for the endless advice and support in running analyses, providing background information, and revising this paper. Lastly, I would like to thank Dr. Lesley Ross for the ongoing support throughout my honors process in HDFS.

Chapter 1

Introduction

Overview

Transitioning into parenthood presents many unforeseen challenges for first-time couples. While they may be kindly told to ‘learn as they go’ from friends, neighbors, and even their own parents, this advice leaves couples unprepared for what is ahead and can create problems for the parents later since early childhood development shapes much of a child’s long-term outcomes. Creation of some parenting programs such as Nurse-Family Partnership and Incredible Years strive to guide first-time parents through the most fragile yet malleable period in their child’s life (Feinberg et al, 2010). However, these programs focus only on specific, high-risk subgroups, making it not universal to the general public.

Family Foundations (FF) acknowledges this lack of universal programming for first-time parents. Within this program, first-time couples attend a series of classes pre- and post-birth in an attempt to strengthen the coparenting quality. The implementation of the FF program has subsequently been associated with better parental adjustment, improved family relationships, and even child’s adjustment (Feinberg et al., 2016).

This study examines the relationship of individual parenting and coparenting quality techniques with children’s long-term behavioral patterns. Evidence will be reviewed on links from the mother’s and father’s parenting as well as coparenting to scores on the parent-reported

child behavioral checklist measuring child adjustment. From that, this study will report on whether the Family Foundations prevention program does play a role in these associations.

Individual Parenting and Coparenting

Parenting is a critical entity in society. It plays a large role in influencing how children's behavioral patterns develop. The definition by Teubert & Pinquart (2010) states parenting as the maternal and/or paternal parenting practices that one utilizes in their own individual interactions with the child. While research shows that both environmental and genetic factors contribute to differences in an individual child's behavior (Deater-Deckard, 2000), one study examined these differences with relation to quality of parenting. Results showed that higher levels of child behavior problems were controlled by high maternal negative affect and low maternal positive affect. This result demonstrates a profound connection between parenting quality and child's individual behavior resulting from genes and environment.

The term parenting quality though can be quite variable in the realm of child development research. Therefore, researchers may rely on standardized parenting styles instead to relay important information on parenting. Postulated in Baumrind's (1971) research, three main parenting styles emerged that are relevant today: authoritative, authoritarian, and permissive. The descriptions for each contain many different, unique characteristics that set them apart. For instance, a positive emotional supportiveness and firm, responsive disciplinary actions characterize authoritative parenting (Winsler et al., 2005). This parenting style is seen typically in socioeconomically-safe, Caucasian families. On the contrary, poor, under resourced families tend to display one of the other parenting styles, which may not be as beneficial to childhood

development as the authoritative parenting style (Winsler et al., 2005). For authoritarian parents, they hold much stronger control to their child's day-to-day activities yet show poorer responsiveness to their children's behavior. Permissive parents achieve high levels of emotional support than those authoritarian parent, but they tend to not have authority of control over their child (Winsler et al., 2005). Because of the extremes in control and emotional support in authoritarian and permissive parenting, these techniques frequently fail to allow proper early childhood development to occur.

Thus, authoritative parenting style in most cases presents itself as the ideal standard. The appropriate responsiveness to the child in this parenting style positively impacts the relationship and development of the child. Those with early responsiveness techniques tend to provide a sturdy foundation that allows the child to feel secure; nevertheless, others view that the more consistent responsiveness of authoritative parenting promotes social and cognitive development (Landry et al, 2001). This led Landry et al. (2001) to examine home visits with mothers of full term ($n=103$), medically low-risk ($n=102$), and medically high-risk ($n=77$) children at five time periods- 6, 12, 24, 36, and 48 months. Researchers found that children showed faster cognitive and social growth when the mother was consistent in responding, demonstrating that this attribute in authoritative parenting is beneficial for healthy childhood development.

While a lot of valuable information has come out in regards to parenting styles, many questions still remain. For instance, mothers and fathers may adopt differing child-rearing practices within a single family, making the family dynamic more complex. This topic interests many researchers, policy makers, and civilians since the changing American family dynamic has seen more involved fathers in the past few decades. It brings about the question of whether this change is due to gender differences in roles or not. Currently, research found indications that the

mother will utilize the more authoritative parenting style while fathers utilize the authoritarian parenting styles (Winsler et al., 2005). Little research however presents on how each individual parenting style and the interaction of the two impacts the family dynamic as a whole. Winsler et al. (2005) postulate that parents utilizing the authoritative parenting style tend to be in agreement with each other while parents that utilize the other styles often have more issues.

This finding of agreement based on parenting styles demonstrates a larger element that impacts parenting quality and child behavioral outcomes: the marital relationship. Based on the ecological systems theory, childhood behavior interrelates to the interactions of the family, particularly the interactions of the mother and father. Therefore, it is imperative that the parents' ability to communicate effectively, be emotionally close, and support the decisions made by one another is strong (Goldberg & Carlson, 2014). Uncertainty, however, remains with whether the relationship quality has a direct or indirect impact on the parent-child relationship. According to Bandura's (1978) social learning theory, children model the behaviors of significant role models in their life. Therefore, witnessing more positive, healthy interactions between the mother and father influences the course of the child's developmental path.

A strong marital relationship has profound implications on the child's development, yet this relationship is not always attainable. Just as positive interactions model good behavior for children, negative interactions such as intimate partner violence display poor behavior to imitate and can weaken the marital relationship between a couple. Intimate partner violence is most prominent for couples in young adulthood, a period of time when partner violence rates range from 22-55% (Kan & Feinberg, 2015). Regardless of what age these actions are conducted, partner violence works indirectly on the parent-child relationship. According to the spillover hypothesis, any experience in a marital relationship- whether or not they are positive or negative-

also impact the parent-child relationship (Kan & Feinberg, 2015). For instance, if parents lack strong communication skills to discuss issues in their marriage and act out negatively as a result, these same frustrations may present themselves again when handling issues with their child. Furthermore, empirical evidence has drawn links between intimate partner violence and child behavioral pattern development. For instance, intimate partner violence has been associated with harsher, erratic discipline, child abuse, and insecure attachments that can predict child maladjustment in later stages of life (Kan et al., 2012).

While these individual parenting styles play a large role in early childhood development as detailed, interest in coparenting has emerged. Coparenting examines how parents relate to each other in the role of parenting, typically occurring when the responsibilities for childrearing are shared (Feinberg, 2003). In Feinberg's framework, coparenting emerges from four major components. The first component of coparenting is the balance between support versus undermining in the parental role, looking deeper into how does the other acknowledge the other's contributions and uphold the other parent's decisions (Feinberg, 2002). Second, coparenting includes a component of childrearing disagreement, the extent in differences of opinion on child-focused topics such as the educational preferences and type of discipline (Feinberg, 2002). While disagreement between parents may predict future child behavioral issues, difference in opinion is not necessarily problematic. For instance, those parents that "agree to disagree" hold a difference in opinion but may have strong coparenting support that counteracts it (Feinberg, 2002).

The third major component of coparenting is how the duties, tasks, and responsibilities that relate to the child and household is divided amongst each parent (Feinberg, 2002). If there is an unequal division, this causes tension on the couple's intimate relationship and their parenting

relationship. Lastly, coparenting encompasses an organizational component known as the parents' management of interactional patterns in the family. This variable looks more specifically into how events such as conflicts, collaborations, and balance impact the child's behavioral outcome (Feinberg, 2002).

The quality of coparenting predicts parent and child outcomes better than other aspects within the family dynamic do such as quality of marital relationship. This is because coparenting is more related to the child behavioral outcomes than the couple's relationship (Feinberg, 2002). A need for more programs like Family Foundations emerges in today's society, so that parenting issues are confronted early on before any child behavioral patterns develop.

Child Behavioral Development

Early childhood turns out to be a critical time for behavioral pattern development, with roughly 12-20% of children exhibiting behavioral issues then (Mathiesen & Sanson, 2000). As detailed in the previous section, a major explanation to these behavioral issues connects to parenting. Parenting plays a large role in the proximal processes of the child directly and indirectly. For those children who experience suboptimal parenting, their risk for developing externalizing and internalizing problems greatly increases (Trentacosta et al., 2008). If not addressed early on, these behavioral problems may linger into adulthood and elevate the likelihood of being diagnosed with psychiatric disorders and issues (Trentacosta et al., 2008).

Therefore, comprehension of how child behavior forms requires attention. As Guajardo et al. (2008) referenced, much of early childhood development depends on the child's theory of mind and emotion understanding. For instance, the child's theory of mind and emotion

understanding together plays a role in their peer likeability; this may be due to a direct or indirect mechanism for emotional regulation possessed by the child (Guajardo et al., 2008).

While individual parental interactions are seen to impact childhood development, coparenting also plays a substantial role. It maintains direct and indirect links to dimensions of childhood adjustment as seen in the figure from Feinberg et al (2009).

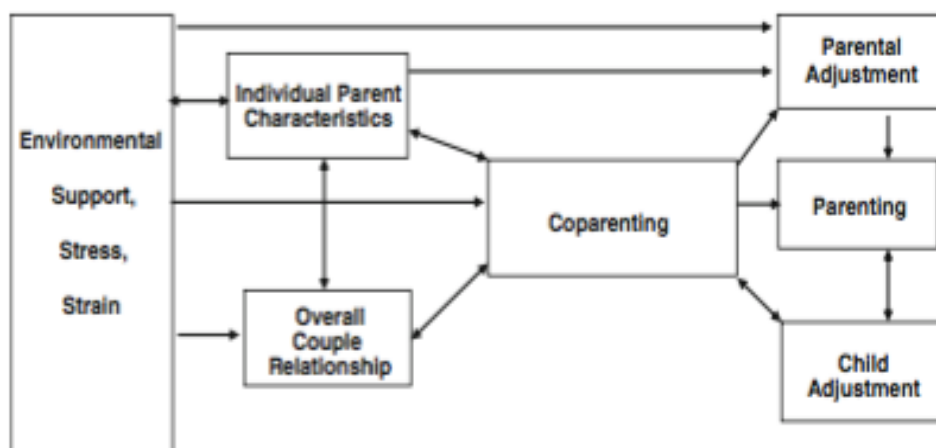


Figure 1. Conceptual model for coparenting's interactions with child adjustment, parenting, and other environmental factors obtained from Feinberg et al. (2009)

Upon analysis, Feinberg et al. (2009) found a consistency in the links of coparenting and child adjustment. In his study's research, those parents participating in FF program demonstrated more positive parenting traits such as higher sensitivity, larger support for child exploration, and more positive affect (Feinberg et al., 2009). These positive parenting variables are some of the strongest ones to be linked to children's behavioral, emotional, and cognitive development. For instance, those children with strong coparenting environments showed a greater ability to self-soothing mechanisms when confronted with stress, demonstrating advanced self-regulation in later stages of development (Feinberg et al., 2009). This result may be due to the intervention's ability to reduce coparenting competition (Solmeyer et al., 2014); however, limitations in research make it challenging to provide a full, comprehensive explanation.

In a follow-up study of 5-7-year olds from a Family Foundations trial, Feinberg et al. (2014) contacted teachers of the study children. Based on teacher reports, those children who came from families assigned to the intervention condition held lower levels of internalizing problems such as social withdrawal, depression, and anxiety than those control households. Furthermore, boys in the coparenting household had lower levels of externalizing problems such as bullying, aggression, and disobedience (Feinberg et al., 2014).

Nevertheless, evaluate the effects of negative coparenting provides another potential outlook to comprehending children's behavioral patterns in school. Examining negative coparenting also reiterates the value of coparenting intervention programs to early childhood development. In one study, for instance, coparenting conflict in the infancy stages predicted higher ratings of aggression in the preschool years. Additionally, low cooperation between parents anticipated later attention problems and poorer academic abilities in children (Teubert & Pinquart, 2010).

All things considered, Feinberg et al.'s (2009) model demonstrates how child behavioral development can be indirectly and directly linked to individual parenting, coparenting, and many other environmental factors. The result of these pathways or influences affect children later in life when they enter child care centers and schools and need to accommodate to these new situations.

Family Foundations Project

Family Foundations (FF) sets itself apart from other programs as a universal prevention program aiming to enhance coparenting quality for those couples expecting their first child.

Developed through trials similar to Cowans and colleagues work, FF utilizes fewer sessions, larger groups, and less trained leaders to impact child well-being and coparenting (Feinberg & Kan, 2008). Collaboration with the childbirth education at local hospitals helps to deliver the best version of this program to a multitude of families from many different backgrounds (Feinberg & Kan, 2008).

Built upon the conceptual theory of coparenting established by Feinberg (2003), the program informs couples on common areas of disagreement during parenthood and then educates them on communication and problem-solving techniques that aim to resolve these disagreements. This program's vision hopes these lessons help in minimizing any strains that come with transitioning to parenthood and subsequently improve coparenting through the child's early development.

Research Questions and Hypothesis

As discussed, many aspects of parenting techniques and child behavioral patterns hold significant associations with each other. While similar questions of this relationship between parenting techniques and child behavioral patterns have been addressed with another cohort from the FF program, this more recent cohort provides new data that can further explore this relationship.

Three research questions will be addressed in this study. First, I ask whether parent's distress impacts their parenting skills and/or child's adjustment. Second is whether parenting - either individual parenting or coparenting- can predict a child's adjustment. Finally, the study

addresses whether the Family Foundations prevention program had an impact on parenting, coparenting, and child behavioral patterns.

First, I predict that the parent's distress early on will have some association with individual parenting and coparenting but will not have an association with child behavioral patterns. I hypothesize that there will be statistically significant relationships from both individual parenting and coparenting to child behavioral patterns, but coparenting will show more links to child outcomes than individual parenting. In relation to the Family Foundations prevention program, my hypothesis is that there will be differences in parenting, coparenting, and resultant child behaviors between the intervention and control groups.

Chapter 2

Methods

Participants and Procedure

Overall, 399 heterosexual couples who were living together and expecting their first child were recruited for this installation of Family Foundations program. The process was accomplished through visiting childbirth education classes and OB/GYN clinics in or near one of the five hospitals of the three Mid-Atlantic states and in one southern state. To participate, each expectant parent had to be least 18 years of age. The mean age of expectant mothers and fathers was 29.1 years ($SD=4.4$) and 31.1 years ($SD=5.4$) respectively when enrolled into the program. Roughly 87% of the couples were married.

In relation to socioeconomic status, aspects such as education level, household income, and ethnicity were assessed. On average, the degree of education completed was about 15.7 years ($SD=1.5$) for mothers and 15.1 years ($SD=1.9$) for fathers, indicating that a majority of them finished a high school education. Median household income for a married couple was stated to be about \$87,500. Lastly, the ethnic composition of the expectant couples was primarily Non-Hispanic Whites. For the mothers, the make-up was 87.5% White/Caucasian, 5.9% Black/African American, 0.3% American Indian/Eskimo/Aleut, 3.8% Asian or Pacific Islander, or 2.6% of another ethnic background not identified on the questionnaire. Out of those White/Caucasian expectant mothers, approximately 93% of individuals did not have Hispanic origin. For the fathers, the make-up was 85.6% White/Caucasian, 7.3% Black/African American,

0.5% American Indian/Eskimo/Aleut, 2.8% Asian or Pacific Islander, or 3.8% of another ethnic background not identified on the questionnaire. Out of those White/Caucasian expectant fathers, approximately 93% of individuals again did not have Hispanic origin.

Upon approval with university and hospital IRBs, participants were asked to provide informed consent. Once consent was given, staff collected pretest data (Wave 1) through a home visit before birth. In these sessions, the research assistant video-recorded and later asked each expectant parent to complete in private a set of questionnaires. After the pretest home visit, each couple was randomly assigned under a randomized block design to one condition. Posttest data (Wave 2) was collected 10 months after birth in another home visit, recording the triadic family interaction, and follow-up data was collected in a home visit at age 2 (Wave 3). To establish baseline equivalence between the program and control families, group differences on over 60 pretest variables were assessed; however, no statistical differences between groups were noted (Feinberg et al., 2016).

If placed in the intervention condition, the Family Foundations prevention program required parents to attend five classes before birth that were approximately three hours long and four classes after birth that were approximately two hours long. In reality, the intervention couples attended 4.4 classes ($SD=1.2$) before birth and 2.3 classes ($SD=1.7$) after birth. On average, couples attended about 7 out of the 9 classes offered.

The focus in each of these classes was to improve coparental problem solving and conflict resolution, enhance communication skills, and figure out mutual support strategies that worked for each couple through presentations, group skill-building exercises, and open

discussion. Class instructors were male and female facilitators that were contracted and trained by the research team.

If placed in the control condition, the families were mailed written materials that described selecting quality child care as first-time parents as well as reviewed the stages of childhood development. No additional classes or information for helping with transitioning was provided.

Measures

General Distress of Parent (at Wave 1 Pretest)

Beyond parenting, individuals undergo a variety of pressures. Therefore, to assess the general state of each parent, two assessments were utilized. The first is termed The State-Trait Anxiety Inventory (STAI) as created by Spielberger et al (1983). This revised 10-item scale measures for the presence of anxious tendencies that an individual reports. The 4-point Likert Scale of almost never, sometimes, often, and almost always employs questions of how one feels generally such as “I am happy” and “I am a steady person”. The scale has been determined as an excellent tool to measure internal consistency with an alpha range of 0.86-0.92.

The second assessment is the Symptom Checklist-90-R with a Hostility Subscale attached. Developed by Derogatis & Cleary (1977), the subscale contains 6 items that assess the hostility and its associated distress on an individual within the past 7 days. To do so, it includes questions such as “Having urges to break or smash things” that undergo the five-point Likert

scale of not at all, a little bit, moderately, quite a bit, and extremely. Higher scores indicate greater hostility. The scale's alpha is 0.84.

Child Behavioral Pattern (at Wave 3, Age 2)

To examine the child's behavior, the Child Behavior Checklist (CBCL) for children between ages 1.5-5 years was utilized. With 100 items for assessment, Achenbach & Rescorla (2000) constructed this questionnaire to determine emotional reactivity, anxiety, depression, withdrawal, attention problems, and others in children based on individual mother and father accounts of the past two months. The checklist relies on three responses- not true, somewhat true, and very true- to items such as "Can't sit still, restless, or hyperactive" or "Refuses to eat". Ultimately, these individual syndromes were composited to develop a raw score for internalizing, externalizing and total problems. For mother's ratings, the alpha for internalizing problems scale, externalizing problems scale, and total problems scale respectively were 0.72, 0.57, and 0.80. For father ratings the alpha for internalizing problems scale, externalizing problems scale, and total problems scale respectively were 0.79, 0.57, and 0.82.

Individual Parenting: Questionnaire (at Wave 2)

One means of assessing how individual parenting impacts the child is through the Parent-Child Conflict Tactics scale adapted by Straus et al (1998). It examines the degree of child maltreatment being conducted either psychologically, physically, and even through nonviolent means from an individual parent. In this 14-item scale, the questionnaire asks how many times in the past year they have endorsed in activities such as "Shook him/her" or "Swore or cursed at him/her". This was achieved through a 8-point Likert scale with 0= this has never happened, 1=Once in the past year, 2=Twice in the past year, 3=3-5 times in the past year, 4=4-10 times in

the past year, 5=11-20 times in the past year, 6=More than 20 times in the past year or 7=Not in the past year, but it happened before. The alpha values for psychological maltreatment, physical maltreatment, and nonviolent discipline by the mother respectively is 0.56, 0.72, and 0.14. The alpha values for psychological maltreatment, physical maltreatment, and nonviolent discipline by the father respectively is 0.72, 0.83, and 0.30.

Coparenting: Questionnaires (Wave 2)

In this study, coparenting is assessed through two important measurements- the Coparenting Relationship Scale (CRS) and Ineffective Arguing Inventory. The CRS was published by Feinberg et al (2012), including subscales of coparenting agreement, coparenting closeness, child exposure to conflict, coparenting support, coparenting undermining, and endorsement of partner's parenting. In the original scale, there are 35 items that follow a 7-point Likert scale. The scale either runs as not true of us (=0) to very true of us (=6) or never (=0) to very often (=6), depending on the type of question asked. Some of the questions include "How often in a typical week, when all 3 of you are together, do you yell at each other within earshot of the child?" and "My partner does not trust my abilities as a parent". For the subscales, the mother's reported alpha was 0.66 for agreement, 0.83 for closeness, 0.89 for exposure to conflict, 0.88 for support, 0.83 for undermining, and 0.88 for endorsement. The father's reported alpha was 0.72 for agreement, 0.77 for closeness, 0.86 for exposure to conflict, 0.87 for support, 0.80 for undermining, and 0.61 for endorsement.

The Ineffective Arguing Inventory asks couples on their style for handling disagreements in their relationship. Kurdek (1994) believed this scale illuminates the global interaction of ineffective argument, with higher scores indicating more arguing. This 8-item assessment used a

5-point Likert scale from strongly disagree (=1) to strongly agree (=5). Statements included “Overall, I’d say we’re pretty good at solving our problems.” and “Our arguments seem to end in frustrating stalemates.” The alpha for this scale ranges from 0.86-0.89.

Individual Parenting and Coparenting: Observed Data (Wave 2)

Parents were instructed at their home visits that they were being recorded in two sessions of parent-child play. In the first session, the parents and child spent a period of time playing freely where no additional instructions or tasks were administered. Upon completion of that, the parents were then instructed to complete a set of teaching tasks that were suited for the developmental stage of the child. From there, undergraduate researchers were trained to code on either a five-point or seven-point scale for certain variables. They were blinded on the condition assigned in order for them to fully focus of the video-recorded interaction. While there are many variables coded, the individual parenting in this study will be assessed by the overall sensitivity, support for exploration, and negative affect from both sessions of the mother and father. For coparenting, combined hostility toward partner, combined triangulation, and combined cooperation with partner will be analyzed.

Chapter 3

Results

For the purpose of this study, the correlations' results were noted as statistically significant if $p < 0.01$. A correlational assessment examined the individual parent characteristic of parental distress to parenting techniques and child behavioral pattern to see if it had an impact either construct. From there, further testing with correlational assessments examined the relationship of parenting techniques to the child's behavioral pattern.

My hypothesis stated that parental distress would have an association to parenting techniques but not an association to child behavioral patterns. Furthermore, I hypothesized that both individual parenting and coparenting techniques would have a statistically significant association with child behavioral patterns; however, coparenting was going to have more associations to its variables than individual parenting.

While parenting in any form is stressful, couples endure many other stressors that impact their everyday tasks. Therefore, the parent's general distress at Wave 1 (pretest) as measured through the STAI (Anxiety) and Symptom Checklist-90-R (Hostility) correlated with the child's behavioral outcomes at Wave 3 (age 2). Unexpectedly, the mother's anxiety correlated to the development of the child's overall problems, $r(306) = 0.20$, $p < 0.01$, but more specifically to the child's externalizing problems, $r(306) = 0.23$, $p < 0.01$. The father's anxiety, likewise, associated with child's behavioral problems, $r(290) = 0.31$, $p < 0.01$, but was more extensive by contributing to both internalizing $r(290) = 0.29$, $p < 0.01$, and externalizing, $r(290) = 0.32$, $p < 0.01$, problems. The positive correlations indicated that for those parents with higher levels of anxiety, their child

associated with more behavioral problems. For the mother, those problems were externalizing ones. For the father however, it was either internalizing or externalizing that contribute to the child's behavior. Moreover, while the mother's level of hostility did not have a statistically significant association to the child's behavior, $r(306)=0.13$, $p=0.02$, the father did have a correlation between his level of hostility and the child's behavioral pattern, $r(290)=0.21$, $p<0.01$. These results can be found in Table 7 of Appendix A.

General parental distress also related with individual parenting and coparenting variables however. For instance, a mother's anxiety associated with an exposure to conflict while coparenting, $r(312)=0.20$, $p<0.01$, as seen in Table 8 of Appendix A. Thus, while parental distress related to the child's behavioral patterns, it also related to the parenting techniques employed, as expected.

From there, individual parenting- as reported on the Individual Parenting Questionnaire- was tested. Ultimately, psychological maltreatment, physical maltreatment, and nonviolence discipline did not have a statistically significant relationship to child behavioral pattern in fathers as shown in Table 10 of Appendix A. On the other hand, mother's psychological maltreatment correlated to the development of behavioral issues, $r(281)=0.25$, $p<0.01$, specifically externalizing ones, $r(281)=0.26$, $p<0.01$. This means that mothers who show higher frequencies of psychological maltreatments in this study's sample associated with those children that develop externalizing behavioral issues such as attention disorders and physical aggression.

Assessing coparenting was accomplished through two questionnaires- the Coparenting Relationship Scale (CRS) and the Ineffective Arguing Inventory. In the CRS, some coparenting variables correlated with child internalizing behavior problems. These variables were parenting agreement, $r(281)=-0.16$, $p<0.01$, closeness due to parenting, $r(281)=-0.17$, $p<0.01$, partner's

parenting $r(281)=-0.18, p<0.01$, support, $r(281)=-0.17, p<0.01$, and undermining $r(281)=0.20, p<0.01$, that correlated to the child's internal behavior as seen in Table 11 of Appendix A. For instance, less agreement with the mother's partner associated with more internalized behavioral issues in the child; likewise, lower levels of closeness between a couple related with internalizing behavioral patterns in the child. Negative views of the partner's parenting and lower support from the mother's perspective further correlated with the child's developing internalizing behavioral issues. Lastly, higher undermining by the father onto the mother correlated with higher child internalizing behavioral issues. The only variable with the mother that correlated with externalizing behavioral patterns was exposure to conflict, $r(281)=0.16, p<0.01$, in such a way that more exposure to conflict increased likelihood of externalizing behavioral issues.

For the father, agreement, $r(266)=-0.27, p<0.01$, and undermining, $r(265)=0.29, p<0.01$, correlated with overall child behavioral issues, which included both internalizing and externalizing issues, as seen in Table 12 of Appendix A. Less agreement with the father's partner associated with more child behavioral problems; furthermore, more undermining by the mother onto the father related with later child behavioral problems. Exposure to conflict, $r(265)=0.19, p<0.01$, maintained a positive correlation to internalizing behavioral issues, meaning more exposure to conflict by the father associated with a presence of internalized behavioral problems in the child. A negative correlation was found between support from the father and only externalizing behavioral issues of the child, $r(264)=-0.17, p<0.01$. Thus, low levels of support by the fathers in this sample demonstrated an association with those children that display externalized behavior problems.

Ineffective arguing also assessed coparenting in this study. The mother's ineffective arguing associated with overall behavioral issues, $r(280)=0.18, p<0.01$, as seen in Table 13 of

Appendix A. The positive correlation indicated that higher levels of ineffective arguing reveal a relationship with child behavioral issues. Additionally, a statistically significant correlation of mother's ineffective arguing and externalizing behavioral issues specifically, $r(280)=0.19$, $p<0.01$, occurred, meaning that those mothers who argues inappropriately associated with children displaying externalized behavioral issues specifically rather than internalized ones. Similar to the mother, the father's ineffective arguing correlated to overall behavioral issues, $r(265)=0.18$, $p<0.01$; however, unlike the mother's analysis, a positive correlation of internalizing behavioral issues and father's ineffective arguing, $r(265)=0.20$, $p<0.01$, occurred. This means fathers who arguing ineffectively displayed a relationship with children presenting internalizing behavioral issues.

Lastly, correlations on the observed data were collected from recorded home visit sessions. For individual parenting, variables included sensitivity, support for exploration, and negative affect. For coparenting, variables included hostility toward partner, triangulation, and cooperation with partner. Upon analysis, no statistically significant results resulted for either the individual parenting or coparenting observed variables. While these observed data correlations alone do not support the hypothesis, the questionnaire responses on coparenting supported the proposed hypothesis that both of these techniques would have a statistically significant association with child behavioral patterns. Coparenting held far more significant findings in comparison to individual parenting, which only found high levels of psychological maltreatment by the mother to be correlated to behavioral issues.

The last question remained then- whether or not the Family Foundations prevention program impacts the parenting, coparenting and child behavioral patterns. It was hypothesized that there will be differences in the parenting, coparenting and child behavioral patterns between

the intervention and control families. To test this hypothesis, one-way ANOVA tests were utilized. The two groups of interest were the intervention couples and the control couples to test out the dependent variables of general distress of the parent, child behavioral patterns, and both parenting techniques. For the purpose of this study, the ANOVA assessments' results were statistically significant if $p < 0.05$.

There were no statistically significant differences between child behavioral patterns in each group at Wave 3. For instance, internalizing behavioral issues due to the father's parenting did not produce any significant differences as determined by the $p < 0.05$ criteria, $F(1, 292) = 2.64$, $p = 0.11$. Therefore, the intervention protocol through Family Foundations alone does not significantly change the child's behavioral patterns.

From there, the individual parenting and coparenting techniques completed analysis to determine how the information for those who took part in the Family Foundations sessions impacted one's parenting in comparison to the control group. For the Parent-Child Conflict Tactic Scale that assessed individual parenting and how they handle conflicts, some notable differences between groups appeared. The degree of psychological maltreatment by the mother, $F(1, 312) = 5.13$, $p = 0.02$, and the degree of physical maltreatment by the father, $F(1, 304) = 6.74$, $p = 0.01$, produced significant differences between the intervention group and control. For the degree of psychological maltreatment by the mother, those in the control ($M = 0.84$, $SD = 0.36$) had higher prevalence of engaging in this maltreatment over those in the program ($M = 0.79$, $SD = 0.41$). Furthermore, the fathers in the control group ($M = 0.64$, $SD = 0.48$) displayed more physical maltreatment to their children than those in the intervention group ($M = 0.59$, $SD = 0.49$).

While the Ineffective Arguing Inventory provided important correlational results on the relationship between ineffective arguing in coparenting to the child behavioral issues, no

significant differences between the intervention group and control occurred. This result demonstrated that the intervention may not resolve this aspect of coparenting necessarily. Nevertheless, the CRS found the level of agreement by the father to be a statistically significant difference between groups, $F(1, 305)=6.14, p=0.01$, with fathers in the intervention group ($M=0.96, SD=0.07$) agreeing more than those in the control group ($M=0.83, SD=0.07$). This demonstrated the impact that Family Foundations program has on the coparenting relationship.

As discussed, no significant correlations were found between the observed individual parenting and observed coparenting data to child behavioral issues. However, when conducting ANOVAs, many important results prevailed. For the individual parenting variables, both the mother's, $F(1, 290)=4.68, p=0.03$, and father's, $F(1, 282)=7.19, p=0.01$, sensitivity showed group differences. For the mothers, those in the intervention ($M=4.96, SD=0.72$) displayed larger amounts of sensitivity than those in the control ($M=4.77, SD=0.73$). Likewise, for the fathers, those in the intervention group ($M=4.58, SD=0.75$) displayed larger sensitivity in comparison to those fathers in the control group ($M=4.33, SD=0.80$). The father's support for exploration, $F(1, 282)=5.82, p=0.02$, also demonstrated group differences, with the intervention group ($M=3.20, SD=0.57$) exhibiting more support than the control group ($M=3.03, SD=0.62$). The only statistically insignificant variable for individual parenting turned out to be both mother's, $F(1, 290)=0.25, p=0.62$, and father's, $F(1, 282)=1.05, p=0.31$, negative affect. Nevertheless, all these differences in certain aspects of observed individual parenting techniques worked to demonstrate the impact that the intervention from the Family Foundations program can possibly have.

Finally, some observed coparenting techniques also held statistically significant differences between groups. For instance, the level of cooperation from the observed interactions

with partners differed between intervention and control. The mother's cooperation with the father, $F(1, 286) = 3.78, p = 0.05$, and the father's cooperation with the mother, $F(1, 286) = 4.41, p = 0.04$, in the videos both exhibited differences between groups. For the mothers, the intervention couples' sessions ($M = 0.08, SD = 0.89$) showed greater cooperation with the father than the control couples' sessions ($M = -0.11, SD = 0.74$). Similarly, the intervention couples' sessions ($M = 0.09, SD = 0.88$) displayed greater cooperation than the control couples' sessions ($M = -0.12, SD = 0.77$) for the fathers. Furthermore, the mother's triangulation, $F(1, 286) = 5.63, p = 0.02$, differed between groups, with lower averages in the intervention group ($M = -0.09, SD = 0.54$) in comparison to the control group ($M = 0.13, SD = 1.00$). Similar to the individual parenting findings, this pattern illustrated the intervention brought upon by Family Foundations program has an impact to coparenting, specifically the cooperation in both parents and the mother's triangulation.

Chapter 4

Discussion

This study analyzed how the individual parental distress impacted both parenting techniques and child behavioral patterns in order to determine where this personal characteristic is most influential. The hypothesis was that parental distress would have a significant association with the parenting techniques but not the child's resultant behavioral patterns since the distress and knowledge of parenting may be controlled directly by the parent while child's behavioral pattern may not necessarily. However, results demonstrated significant correlations in both child behavior and parenting techniques, indicating that there may be different pathways by which parent's general distress influences both parenting and child behavior.

This study further examined the existence of an association between early individual parenting and coparenting techniques at the 10-month mark to the children's resultant behavioral patterns at age 2. It was hypothesized that statistically significant correlations for both parenting tactics- individual and coparenting- would be found to child behavioral issues, but coparenting would show more associations since previous research uncovered its impact to later child behaviors. Results supported this hypothesis from the questionnaires given to parents rather than from the observed data. The Parent-Child Conflict Tactics scale for individual parenting only showed a mother's level of psychological maltreatment influencing externalizing and overall child behavioral issues. Moreover, the questionnaires Coparenting Relationship Scale and Ineffective Arguing Inventory saw more extensive associations for coparenting to multiple aspects of this parenting technique.

The study also addressed the impact that the Family Foundations (FF) intervention has on parenting and child behavioral patterns via one-way ANOVA tests. These analyses search for

any differences between the two conditions- those couples in the intervention and those without the intervention. The hypothesis was that there will be differences in both the aspects of parenting techniques and resultant child behavioral pattern due to the in-depth information provided to first-time parents at the many sessions of FF program compared to those first-time parents that only receive information through the mail. The results did not find differences in child behavioral patterns, which demonstrates that FF program alone cannot influence the child's behavioral pattern later. There were, however, some important differences between groups for both individual parenting and coparenting aspects, which was largely apparent in the observed data coded from home visit videos.

Comprehending the general distressed state of the parent initially was important in moving forward with the remaining research questions. In this study, the measure of distressed parental state contained both the individual's anxiety and hostility. The results showed that the both parent's anxiety had an association with the child's behavioral issues, such that parents with high anxiety levels correlated with children with behavioral issues. The father's hostility also displayed a significant association. Fathers who display hostile tendencies in their home life correlated with a child's behavioral issues. Though this information may signal a direct association with child behavioral patterns and distress, other correlations with general distress variables and parenting techniques argue differently. General distress also relates with parenting techniques as expected. For instance, high anxiety within the mother correlated to a high exposure of conflict in a coparenting scenario. Thus, this individual characteristic of general distress associates to both child behavioral patterns and parenting, but the connections between them may be either direct or indirect as was indicated by Figure 1 (Feinberg et al., 2009). Further analysis would need to be accomplished to understand the connections.

From there, the correlations examined the relationship of parenting techniques- both individual parenting and coparenting- and the child behavioral pattern. The results supported the initial hypothesis that both parenting techniques maintain relationships to child behavior, but coparenting would demonstrate more associations than individual parenting since positive coparenting has a large impact on the child's behaviors such as self-soothing in stressful events (Feinberg et al., 2009). Ultimately, the individual parenting questionnaire only showed an association between mother's psychological aggression and the child's externalizing behaviors such as bullying and attention issues. In regards to observed individual parenting, no variables significantly associated with child adjustment.

On the contrary, many aspects of coparenting revealed relationships with child behavioral pattern, validating both statements outlined in the hypothesis. Each parent retained an association with more than one aspect contributing to either internalizing, externalizing, or overall child behavioral issues. For the mother, minimal agreement, low levels of closeness, diminished perceptions of partner's parenting, low support, and increased undermining to one's partner associated with higher internalizing issues in children. Only exposure to conflict by the mother related to externalizing issues. Thus, results of the correlational analyses revealed that a mother's poor coparenting was associated with child internalizing issues. For the father, low agreement and high undermining associated with increased overall behavioral issues in the child, which includes both internalizing and externalizing behavioral issues, but there were some coparenting aspects that correlated to specific types of behavior. For example, high exposure to conflict by the father related to high internalizing behavioral issues in the child. Additionally, low support from the father associated with the child's externalizing problems.

Coparenting assessment also comprised of looking at ineffective arguing, which draws similarities to some aspects from the Coparenting Relationships Scale (CRS) like agreement, support, and undermining variables. The mother's ineffective arguing correlated positively in relation to overall behavioral issues. Specifically, however, her ineffective arguing targeted the child's externalizing behavioral issues in these correlations and not internalizing behavioral issues. This conflicts with a number of variables from the CRS that found correlations between mother's coparenting and internalizing behavioral issues. Nevertheless, similar associations between externalized behavioral issues and the mother's parenting variable such as mother's psychological maltreatment levels and exposure to conflict indicate a potential pattern, which may indicate that different actions in the mother's coparenting were associated with different forms of behavioral issues.

Similar to individual parenting's observed variables, no observed coparenting variables found an association to child behavioral patterns. This may be indicative that a single recording of a home visit may not speak significantly on the long-term patterns of parenting techniques and child behavior; instead, the questionnaires may exemplify the real associations over a longer period of time as they did in this study. All things considered, the correlations confirmed the hypothesis that parenting techniques - specifically coparenting - were related to the child behavioral pattern.

The last question examines the influence of FF intervention on parenting techniques and child behavior for those couples selected to this program. Individual parenting resulted in some notable differences between intervention and control groups, specifically the degree of psychological maltreatment by the mother and the degree of physical maltreatment by the father. In each type of maltreatment, the intervention groups displayed lower averages of maltreatment

in comparison to the control groups. This ANOVA result reveals that the intervention by the FF program does work to diminish negative parenting practices.

Moreover, individual parenting displayed variance between groups with the observed home visit variables. For instance, intervention parents presented greater sensitivity in the interactions they had with their children. Additionally, the father's support for exploration specifically differed between the intervention and control groups. These ANOVA results support the hypothesis statement that notable differences between the intervention and control groups are present in individual parenting, but the differences with coparenting still need to be addressed to fully validate the hypothesis. Knowing that information is greatly valuable because the FF program's primary mission strives to improve specifically coparenting techniques in order to prevent negative behavioral patterns from developing.

Nonetheless, the coparenting questionnaire portion did not find many significant differences as was expected. Only the father's agreement level from the questionnaires showed variance between groups. This leaves just the observed coparenting data from the home visits to conclude if there is full support for the hypothesis. With that said, significant differences in the level of cooperation from both parents and the mother's triangulation between groups emerged. The mother's triangulation presented lower averages in the intervention group compared to the control group. On the other hand, the level of cooperation in both mothers and fathers greatly increased as a result of the intervention. These ANOVA results reflect that the sessions of FF program impact couples' coparenting skills, confirming the portion of the hypothesis that the intervention impacts parenting techniques.

In contrast, the ANOVAs for child behavioral pattern uncovered insignificant results, indicating that no difference was found when comparing intervention and control conditions.

This disagrees with the hypothesis that the FF program produces significant variances in child behavioral patterns. While this finding was unexpected, it demonstrates that child behavioral patterns can be largely influenced by a variety of factors. Parenting can only influence so much of the child's behavior, which may explain why not a large difference was seen between the control and the intervention groups. Biological, social, and even cognitive influences play a part in the composition of child behavior. Therefore, future research needs to assess the multiple fields of influence on child behavioral patterns in order to reveal a more insightful observation.

Conclusively, this study confirmed that the general distressed state of the parent associated with parenting techniques as expected, but also child behavioral patterns unexpectedly. Additionally, a correlation resulted between parenting techniques- specifically coparenting- and child behavior that confirms the hypothesis. Differences in aspects of parenting as a result of the Family Foundations intervention emerged, partially supporting the initial hypothesis posed. However, the analyses did not confirm that the FF program influences improvements in child behavioral patterns; this requires further research on multiple factors to fully comprehend. While these conclusions provide knowledge on early childhood development and parenting, some limitations exist in this study.

For instance, the study's sample was predominantly comprised of middle-class, White couples. While the recruitment process was randomized, this resultant group does not necessarily represent the general population in the United States. Certain regions of the country may comprise more or less of one ethnicity than another region. Therefore, this homogenous sample may not be generalizable to a larger audience. To try resolving this sampling issue, recruiters should strive for a sample with more racial diversity like African American or Hispanic couples and with more socioeconomic diversity such as low-income households.

Furthermore, assessing individual parenting and coparenting came from two sources of information- the questionnaires couples were asked to fill and the recorded home visit sessions. While this provided a well-rounded perspective on the short- and long-term aspects of parenting, utilizing both of them provided some mixed messages on what their relationship to child behavioral pattern was. Therefore, revising the questionnaires to complement the observed data or looking into different scales for individual parenting and coparenting may have been more useful in answering the research questions. Additionally, parenting is only one aspect in the dynamic between the couple. Considering more factors such as marital relationship or individual characteristics of a parent may have helped explain the parenting and child behavioral pattern relationship even better.

The nature of the correlation assessment also limits the interpretations of conclusions in this thesis. Correlations only determine the presence of an association. It cannot determine the causality among the variables. Therefore, while one may know that a certain aspect of parenting associates with future child behaviors, one cannot infer which causes this association.

Overall, the conclusions are promising to understanding parenting and early childhood development. Future studies would benefit from gathering a more diverse, large sample in order to better generalize this information to a larger audience. Potentially, assessing differences in parenting techniques and child behaviors among different ethnic and socioeconomic status groups may reflect how different family environments influence these constructs.

Furthermore, examining additional variables may supplement the ones utilized in this study. For instance, the parents reported on the child behavioral pattern through a questionnaire, which may contain self-reporting biases that do not accurately reflect the child's everyday behaviors. Therefore, similar to how individual parenting and coparenting variables were drawn

from questionnaire and observed data, coding for child behaviors within the recorded home visit sessions supplements the questionnaire information and potentially uncovers more extensive results. Adding more variables such as individual characteristics of each parent could strengthen one's comprehension on the parenting techniques and child behavioral patterns association as well. These improvements to future studies would further knowledge on early childhood development and on the efficacy of FF as a universal intervention on coparenting techniques.

Appendix A

Tables

Table 1.

Descriptive Statistics for General Distress of Parent Variables (W1)

	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>
<i>Anxiety¹ (M)²</i>	397	10.00	33.00	18.27	4.84
<i>Anxiety (F)</i>	397	10.00	33.00	17.23	4.74
<i>Hostility (M)</i>	397	0.00	2.83	0.42	0.41
<i>Hostility (F)</i>	396	0.00	3.67	0.38	0.48

¹ Anxiety refers to STAI overall score.

² (M) refers to mother-related variables while (F) refers to father-related variables

Table 2.*Descriptive Statistics for Child Behavioral Pattern Variables (W3)*

	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>
<i>Child Internalizing Behavior (M)²</i>	309	0.00	25.00	5.65	4.25
<i>Child Externalizing Behavior (M)</i>	309	0.00	30.00	10.18	6.39
<i>Child Overall Behavior (M)</i>	309	0.00	77.00	24.63	14.13
<i>Child Internalizing Behavior (F)</i>	294	0.00	33.00	5.89	4.95
<i>Child Externalizing Behavior (F)</i>	294	0.00	35.00	10.52	6.46
<i>Child Overall Behavior (F)</i>	294	1.00	93.00	25.89	15.34

¹ Anxiety refers to STAI overall score.² (M) refers to mother-related variables while (F) refers to father-related variables

Table 3.*Descriptive Statistics for Individual Parenting Variables- Questionnaire (W2)*

	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>
<i>Psychological Maltreatment (M)</i> ²	314	0.00	1.00	0.36	0.48
<i>Physical Maltreatment (M)</i>	314	0.00	1.00	0.25	0.44
<i>Nonviolence Discipline (M)</i>	314	0.00	1.00	0.89	0.31
<i>Psychological Maltreatment (F)</i>	306	0.00	1.00	0.35	0.48
<i>Physical Maltreatment (F)</i>	306	0.00	1.00	0.28	0.45
<i>Nonviolence Discipline (F)</i>	302	0.00	1.00	0.79	0.41

¹ Anxiety refers to STAI overall score.² (M) refers to mother-related variables while (F) refers to father-related variables

Table 4.*Descriptive Statistics for Coparenting Variables- Coparenting Relationship Scale Questionnaire (W2)*

	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>
<i>Agreement (M)</i> ²	314	0.00	6.00	5.12	1.04
<i>Parenting Brings Closer (M)</i>	314	0.00	6.00	4.79	1.27
<i>Exposure to Conflict (M)</i>	314	0.00	3.60	0.69	0.71
<i>Partner's Parenting (M)</i>	314	0.67	6.00	4.98	1.12
<i>Support (M)</i>	314	0.00	6.00	4.68	1.34
<i>Undermining (M)</i>	314	0.00	5.60	0.51	0.76
<i>Brief Measure of Coparenting (M)</i>	315	1.17	6.00	5.20	0.82
<i>Agreement (F)</i>	307	1.50	6.00	5.13	0.91
<i>Parenting Brings Closer (F)</i>	305	0.60	6.00	4.94	1.04
<i>Exposure to Conflict (F)</i>	306	0.00	6.00	0.69	0.84
<i>Partner's Parenting (F)</i>	307	2.67	6.00	5.47	0.67
<i>Support (F)</i>	305	0.00	6.00	4.69	1.10
<i>Undermining (F)</i>	306	0.00	3.80	0.63	0.83
<i>Brief Measure of Coparenting (F)</i>	308	2.50	6.00	5.28	0.69

Table 5.*Descriptive Statistics for Coparenting Variables- Ineffective Arguing Inventory Questionnaire (W2)*

	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>
<i>Ineffective Arguing (M)</i> ²	313	12.00	32.00	22.63	3.14
<i>Ineffective Arguing (F)</i>	306	16.00	32.00	23.19	2.90

¹ Anxiety refers to STAI overall score.² (M) refers to mother-related variables while (F) refers to father-related variables

Table 6.
Descriptive Statistics for Observed Individual Parenting and Coparenting Data (W2)

	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>
<i>Sensitivity (M)</i> ²	292	3.00	6.50	4.88	0.73
<i>Support for Exploration (M)</i>	292	1.00	5.00	3.38	0.58
<i>Negative Affect (M)</i>	292	1.00	4.50	1.07	0.28
<i>Hostility toward Partner (M)</i>	288	-0.20	7.01	-0.0010	0.81
<i>Triangulation (M)</i>	288	-0.36	7.31	0.0023	0.78
<i>Cooperation with Partner (M)</i>	288	-2.25	2.11	-0.0009	0.83
<i>Sensitivity (F)</i>	284	1.50	6.00	4.47	0.78
<i>Support for Exploration (F)</i>	284	1.00	5.00	3.13	0.60
<i>Negative Affect (F)</i>	284	1.00	3.50	1.08	0.31
<i>Hostility toward Partner (F)</i>	288	-0.20	7.16	-0.0008	0.75
<i>Triangulation (F)</i>	288	-0.29	4.07	0.0039	0.74
<i>Cooperation with Partner (F)</i>	288	-2.05	2.21	-0.0030	0.84

¹ Anxiety refers to STAI overall score.

² (M) refers to mother-related variables while (F) refers to father-related variables

Table 7.*Correlations of Child Behavioral Pattern and General Distress of Parent Variables*

	1	2	3	4	5	6	7	8	9	10
1. Anxiety ¹ (M) ²	1	-	-	-	-	-	-	-	-	-
2. Anxiety (F)	0.13**	1	-	-	-	-	-	-	-	-
3. Hostility (M)	0.44**	0.08	1	-	-	-	-	-	-	-
4. Hostility (F)	0.15**	0.32**	0.18**	1	-	-	-	-	-	-
5. Child Internalizing Behaviors (M)	0.11	0.16**	0.11	0.08	1	-	-	-	-	-
6. Child Externalizing Behaviors (M)	0.23**	0.18**	0.11	0.09	0.57**	1	-	-	-	-
7. Child Overall Behaviors (M)	0.20**	0.20**	0.13	0.07	0.82**	0.89**	1	-	-	-
8. Child Internalizing Behaviors (F)	0.10	0.29**	0.05	0.25**	0.40**	0.20**	0.34**	1	-	-
9. Child Externalizing Behaviors (F)	0.17**	0.32**	0.11	0.22**	0.23**	0.40**	0.39**	0.63**	1	-
10. Child Overall Behaviors (F)	0.18**	0.31**	0.09	0.21**	0.32**	0.32**	0.41**	0.86**	0.90**	1

** Correlation is significant at 0.01 level

¹ Anxiety refers to STAI overall score.

² (M) refers to mother-related variables while (F) refers to father-related variables

Table 8.*Correlations of Coparenting Variables (Mother) and General Distress of Parent (Mother) Variables*

	1	2	3	4	5	6	7	8	9
1. Anxiety ¹	1	-	-	-	-	-	-	-	-
2. Hostility	0.44**	1	-	-	-	-	-	-	-
3. Agreement	-0.08	-0.11	1	-	-	-	-	-	-
4. Parenting Brings Closer	-0.21**	-0.12	0.49**	1	-	-	-	-	-
5. Exposure to Conflict	0.20**	0.28**	-0.21**	-0.41**	1	-	-	-	-
6. Partner's Parenting	-0.11	-0.10	0.49**	0.72**	-0.34**	1	-	-	-
7. Support	-0.25**	-0.12	0.52**	0.78**	-0.29**	0.71**	1	-	-
8. Undermining	0.10	0.16**	-0.55**	-0.39**	0.37**	-0.38**	-0.40**	1	-
9. Brief Measure of Coparenting	-0.22**	-0.17**	0.70**	0.86**	-0.49**	0.79**	0.85**	-0.59**	1

** Correlation is significant at 0.01 level

¹ Anxiety refers to STAI overall score.² (M) refers to mother-related variables while (F) refers to father-related variables

Table 9.*Correlations of Coparenting Variables (Father) and General Distress of Parent (Father) Variables*

	1	2	3	4	5	6	7	8	9
1. Anxiety ¹	1	-	-	-	-	-	-	-	-
2. Hostility	0.32**	1	-	-	-	-	-	-	-
3. Agreement	-0.31**	-0.12	1	-	-	-	-	-	-
4. Parenting Brings Closer	-0.23**	-0.14	0.35**	1	-	-	-	-	-
5. Exposure to Conflict	0.18**	0.17**	-0.32**	-0.44**	1	-	-	-	-
6. Partner's Parenting	-0.25**	-0.11	0.44**	0.41**	-0.37**	1	-	-	-
7. Support	-0.23**	-0.11	0.43**	0.74**	-0.38**	0.48**	1	-	-
8. Undermining	0.24**	0.23**	-0.57**	-0.38**	0.51**	-0.42**	-0.46**	1	-
9. Brief Measure of Coparenting	-0.31**	-0.19**	0.62**	0.78**	-0.66**	0.55**	0.80**	-0.70**	1

** Correlation is significant at 0.01 level

¹ Anxiety refers to STAI overall score.² (M) refers to mother-related variables while (F) refers to father-related variables

Table 10.*Correlations of Child Behavioral Pattern to Individual Parenting Questionnaire Variables*

	1	2	3	4	5	6	7	8	9	10	11	12
1. Psychological Maltreatment (M) ²	1	-	-	-	-	-	-	-	-	-	-	-
2. Physical Maltreatment (M)	0.43**	1	-	-	-	-	-	-	-	-	-	-
3. Nonviolence Discipline (M)	0.20**	0.16**	1	-	-	-	-	-	-	-	-	-
4. Psychological Maltreatment (F)	0.29**	0.26**	0.14	1	-	-	-	-	-	-	-	-
5. Physical Maltreatment (F)	0.28**	0.44**	0.12	0.40**	1	-	-	-	-	-	-	-
6. Nonviolence Discipline (F)	0.09	0.08	0.11	0.24**	0.19**	1	-	-	-	-	-	-
7. Child Internalizing Behaviors (M)	0.14	0.01	0.03	-0.01	0.05	-0.03	1	-	-	-	-	-
8. Child Externalizing Behaviors (M)	0.26**	0.09	0.10	0.08	0.08	0.00	0.57**	1	-	-	-	-
9. Child Overall Behaviors (M)	0.25**	0.07	0.10	0.06	0.11	0.01	0.82**	0.89**	1	-	-	-
10. Child Internalizing Behaviors (F)	0.05	0.00	0.05	-0.01	0.11	0.02	0.40**	0.20**	0.34**	1	-	-
11. Child Externalizing Behaviors (F)	0.09	0.04	0.12	0.10	0.15	0.12	0.23**	0.40**	0.39**	0.63**	1	-
12. Child Overall Behaviors (F)	0.09	0.00	0.11	0.06	0.15	0.09	0.32**	0.32**	0.41**	0.86**	0.90**	1

** Correlation is significant at 0.01 level

¹ Anxiety refers to STAI overall score.

² (M) refers to mother-related variables while (F) refers to father-related variables

Table 11.
Correlations of Child Behavioral Pattern to Coparenting Questionnaire (Mother Only- Coparenting Relationship Scale)

	1	2	3	4	5	6	7	8	9	10
1. Agreement	1	-	-	-	-	-	-	-	-	-
2. Parenting Brings Closer	0.49**	1	-	-	-	-	-	-	-	-
3. Exposure to Conflict	-0.21**	-0.41**	1	-	-	-	-	-	-	-
4. Partner's Parenting	0.49**	0.72**	-0.34**	1	-	-	-	-	-	-
5. Support	0.52**	0.78**	-0.29**	0.71**	1	-	-	-	-	-
6. Undermining	-0.55**	-0.39**	0.37**	-0.38**	-0.40**	1	-	-	-	-
7. Brief Measure of Coparenting	0.70**	0.86**	-0.49**	0.79**	0.85**	-0.59**	1	-	-	-
8. Child Internalizing Behaviors	-0.16**	-0.17**	0.12	-0.18**	-0.17**	0.20**	-0.19**	1	-	-
9. Child Externalizing Behaviors	-0.10	-0.14	0.16**	0.12	-0.11	0.10	-0.14	0.57**	1	-
10. Child Overall Behaviors	-0.15	-0.15	0.16**	-0.15	-0.13	0.15**	-0.16**	0.82**	0.89**	1

** Correlation is significant at 0.01 level

¹ Anxiety refers to STAI overall score.

² (M) refers to mother-related variables while (F) refers to father-related variables

Table 12.

Correlations of Child Behavioral Pattern to Coparenting Questionnaire (Father Only- Coparenting Relationship Scale)

	1	2	3	4	5	6	7	8	9	10
1. Agreement	1	-	-	-	-	-	-	-	-	-
2. Parenting Brings Closer	0.35**	1	-	-	-	-	-	-	-	-
3. Exposure to Conflict	-0.32**	-0.44**	1	-	-	-	-	-	-	-
4. Partner's Parenting	0.44**	0.41**	-0.37**	1	-	-	-	-	-	-
5. Support	0.43**	0.74**	-0.38**	0.48**	1	-	-	-	-	-
6. Undermining	-0.57**	-0.38**	0.51**	-0.42**	-0.46**	1	-	-	-	-
7. Brief Measure of Coparenting	0.62**	0.78**	-0.66**	0.55**	0.80**	-0.70**	1	-	-	-
8. Child Internalizing Behaviors	-0.18**	-0.09	0.19**	-0.11	-0.13	0.21**	-0.23**	1	-	-
9. Child Externalizing Behaviors	-0.27**	-0.13	0.16	-0.13	-0.17**	0.28**	-0.28**	0.63**	1	-
10. Child Overall Behaviors	-0.27**	-0.14	0.18**	-0.15	-0.18**	0.29**	-0.30**	0.86**	0.90**	1

** Correlation is significant at 0.01 level

¹ Anxiety refers to STAI overall score.

² (M) refers to mother-related variables while (F) refers to father-related variables

Table 13.

Correlations of Child Behavioral Pattern to Coparenting Questionnaire (Ineffective Arguing Inventory) Variables

	1	2	3	4	5	6	7	8
1. Ineffective Arguing (M) ²	1	-	-	-	-	-	-	-
2. Ineffective Arguing (F)	0.33**	1	-	-	-	-	-	-
3. Child Internalizing Behaviors (M)	0.15	0.11	1	-	-	-	-	-
4. Child Externalizing Behaviors (M)	0.19**	0.02	0.57**	1	-	-	-	-
5. Child Overall Behaviors (M)	0.18**	0.07	0.82**	0.89**	1	-	-	-
6. Child Internalizing Behaviors (F)	0.06	0.20**	0.40**	0.20**	0.34**	1	-	-
7. Child Externalizing Behaviors (F)	0.07	0.15	0.23**	0.40**	0.39**	0.63**	1	-
8. Child Overall Behaviors (F)	0.07	0.18**	0.32**	0.32**	0.41**	0.86**	0.90**	1

** Correlation is significant at 0.01 level

¹ Anxiety refers to STAI overall score.

² (M) refers to mother-related variables while (F) refers to father-related variables

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