Couples' Relationship Qualities and Child Behavior Problems

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COUPLES’ RELATIONSHIP QUALITIES AND CHILD BEHAVIOR PROBLEMS

A Dissertation

Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfillment of the requirements for the degree of Doctor of Philosophy

in

The School of Social Work

by

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B.A., University of Louisiana Lafayette, 2008
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May 2020
I dedicate this dissertation to my late mother and to my two children. My mother passed away in 2015 and will not be here to witness my graduation. However, she taught me how to walk through even the most difficult times with grace and dignity. My interest in parent-child relationships is partly because of my mother. She was devoted and kind and would do just about anything to make sure her girls were safe and loved. Some of the things she did worked, others did not work—just like any other mom. She was the best, in my opinion.

My two children were born to a mother in a doctoral program. Both have had to endure long days of mommy being away doing research, reading, and working. Both have sacrificed time with me when they deserved to have me present, loving them, playing with them, and giving them my undivided attention. Thank you for your patience, girls. I love you; I appreciate you, and I am so proud of you.

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ABSTRACT

This dissertation examines couples’ relationship quality on child externalizing behavior problems. Family systems theory and Belsky’s determinants of parenting model posit that child behavior problems stem from problematic familial relationships and lack of support within the couple’s relationship. A secondary data analysis was conducted using data from the National Fragile Families and Child Wellbeing Study. The independent variables represent couples’ relationship quality and are affection/support, relationship instability, and coercion. Dependent variables represent child behavior problems and are aggression measured when children are age five and age nine, and rule-breaking behavior when the child is age nine. To examine what relationship qualities between couples might impact child aggression or rule-breaking behavior, twelve multiple regression analyses were run yielding a sample range of 768 to 907 focal children and their biological parents. The findings from this study suggest that there are strong, consistent relationships between parents’ reports of affection and support and child externalizing behavior problems. Thus, the evidence taken from these findings indicates that problems with affection and support in couples’ relationships are an important risk factor for the development of children's externalizing behavior problems. Father reports of coercion were found to be significantly associated with child rule-breaking behavior at age nine. Maternal depression was significantly associated with child aggression at ages five and nine in both maternal and paternal regression models. Implications for future social work research and practice are discussed.
CHAPTER 1. INTRODUCTION

Decades of empirical literature lend credibility to the assertion that children living in stable two-parent households fare better developmentally than those that do not (Bachman et al., 2009; Berger & McLanahan, 2015). Ecological systems theory and family systems theory posit that healthy child development is based on the quality of both the relationship of the parent-child dyad and the impact of the family structure on the child (Bronfenbrenner, 1979; Kerr & Bowen, 1988). Externalizing behavior (EB) problems in young children are assumed to stem from problematic familial and social relationships, negative caregiving experiences, and impairments in socioemotional development (Belsky, 1984; Bronfenbrenner, 1979; Kerr & Bowen, 1988). In fact, clinical interventions aimed at decreasing EBs often focus less on the child and more on ways to improve parenting by increasing warmth and decreasing harshness (Bjørseth & Wichstrøm, 2016; Hoffman et al., 2006; Lyon & Budd, 2010; Maher et al., 2011; Marvin et al., 2006; Sumargi et al., 2015). The root of the problem often lies less with the behavior of the child and more with the interactions between the child and those family members closest to her.

Decades of literature have examined the effects of parent-child relationships, marital status, and the negative qualities within couples’ relationships on child behavioral outcomes; however, there is a dearth of research examining the effects of the positive qualities shared between couples and their effects on EB problems in children (Belsky, 1984; Bronfenbrenner, 1979; Hoffman et al., 2006; Kerr & Bowen, 1988; Marvin et al., 2002). The purpose of this study is to examine what positive or negative qualities within couples’ relationships are associated with EB problems in children.
The Scope of the Problem

The DSM-5 (2012) defines externalizing disorders in children and adolescents as having prominent behavioral markers of impulsivity, conduct problems, anti-social behavior, and substance abuse. Externalizing behavior problems are described as problems that infringe upon the rights of others and cause significant tension between the person and society (American Psychiatric Association [APA], 2013). The combination of poor emotion regulation and impulsive behavior are the crux of challenging externalizing behavior. Without intervention behavior problems can become increasingly problematic over time (APA, 2013; Buss & Spencer, 2018).

Childhood Externalizing Behavior Problems

Externalizing behaviors are common in very young children. Preschool children will normally exhibit externalizing behavior that is related to as yet underdeveloped executive function. Executive function refers to capacities for impulse control, judgment, and reasoning – all of which are immature in early childhood (Blakemore & Choudhury, 2006). The developmentally expected behavior in very young children can include poor impulse control and judgment, aggression, trouble getting along with others, resistance to rules or guidance, or poor emotion regulation (Araujo Jiménez et al., 2014; Buss & Spencer, 2018). It is the role of the caregiver(s) to assist the child with structure, consistency, and guidance for the purpose of increasing emotion regulation and therefore decreasing EBs. Without such assistance, EBs often become problematic to the extent that they deviate from a normal developmental trajectory of socialization and impulse-control (Araujo Jiménez et al., 2014; Buss & Spencer, 2018). In severe cases of EBs, children who exhibit clinical definitions of EB problems may have pervasive, frequent, and persistent characteristics such as aggression, hyperactivity, noncompliant or
delinquent behavior, emotional outbursts, problems following directions or listening, poor school performance, and more serious behaviors such as violence, antisocial behavior, and lack of empathy (APA, 2013; Liu, 2004; World Health Organization [WHO], 2019; van Dijk et al., 2017).

EB problems in preschoolers have been linked to preschool suspensions and expulsions (Boothe & Nagle, 2013; Gilliam & Shabar, 2006). Preschool suspensions and expulsions create problems across multiple domains. Expelled children are at risk for increased stress as they experience transitions to new teachers and classmates, typically arriving with an established label of problematic behavior. Similarly, parents experience increased stress as they often must disrupt their schedules to handle problems at school and find new placements for their children.

Stress from behavior problems creates challenges within the preschool classroom, on both teachers and preschool classmates dealing with EB problems in a peer (Boothe & Nagle, 2013; Gilliam & Shabar, 2006). EB problems also have been associated with deficits in cognition in early childhood (Hughes & Ensor, 2006). Children as young as two years old who struggle with behavior problems have been found to have deficits in cognitive development and language (Hughes & Ensor, 2006).

Incidence and Prevalence

In early to late childhood, externalizing behavior can become more serious and consequential. Normal human development indicates that children become more autonomous with age, and adults increasingly have less influence and control over them. As children grow to be more autonomous, those with externalizing behavior problems are more likely to experience anger, intentionally and deliberately defy authority, and resist or defy social norms (Achenbach & Rescorla, 2000; APA, 2013). The long-lasting impact of EB problems in childhood can have
negative implications across the lifespan. Oppositional Defiant Disorder (ODD) and Conduct Disorder (CD) are the two major psychiatric diagnoses that originate in childhood (APA, 2013). ODD and CD represent the most serious of a spectrum of behavior disorders that can manifest during childhood.

In the United States, the rates of diagnosed and reported behavior problems vary between 3% to greater than 10% (APA, 2013). Boys are significantly more likely to exhibit EB problem than are girls, and males are more likely to be diagnosed with ODD or CD than are females (Maughan et al., 2004; Nock et al., 2007; Visser et al., 2016). There are no significant differences in the prevalence of ODD and CD among individuals of different races or ethnicity. However, socioeconomic status has a significant impact on these diagnoses as children in lower socioeconomic status (SES) households are more likely to receive them than children in homes with higher SES (Visser et al., 2016).

**Long-Term Impacts of Behavior Diagnoses**

Close meaningful relationships are often compromised for children with EB problems as anger, conflict, and poor communication are barriers to managing successful relationships (Aebi et al., 2014; Burke et al., 2014; Huesmann et al., 2009). Therefore, it is not surprising that EB problems and anti-social behaviors are associated with poor social skills and conflictive social relationships. Indeed, study outcomes have indicated that boys with ODD grow to be adults with significantly lower quality romantic relationships (Burke et al., 2014). Common consequences of negative, hostile interactions with loved ones include damage to self-esteem and a higher likelihood of maladaptive coping skills to manage stress (Aebi et al., 2014).

EB problems, maladaptive coping skills, and low self-esteem appear to be inter-related (van Wijk-Herbrink et al., 2018). Childhood EB, ODD, and CD have been linked to substance
use, cigarette smoking, and gambling problems in adolescence or adulthood (Aebi et al., 2014; Barnes et al., 2011; Moore et al., 2018; van der Molen et al., 2015; von Stumm et al., 2011). EB problems are also linked to a high risk of engaging in delinquent or criminal behavior and sexual risk-taking (Aebi et al., 2014; van der Molen et al., 2015).

EB problems are associated with poor mental and physical health from childhood, into adolescence, and throughout adulthood. Children with ODD or CD may experience increased vigilance to real or perceived threats and reduced empathic responsiveness to others (Marsh et al., 2013; Pijper et al., 2018). Cognitive distortions and the inability to communicate feelings appropriately are common in adults who had EB problems as children (Aebi et al., 2014). The risk for anxiety, depression, self-harm, psychotic illnesses, and post-traumatic stress disorder increases for children with EB problems (Moore et al., 2018; Pijper et al., 2018; van der Molen et al., 2015). Childhood behavior problems also have been associated with higher rates of obesity, risk of physical injury in adulthood, and lower rates of overall wellbeing (Jokela et al., 2009; von Stumm et al., 2011; Wertz et al., 2018).

EB problems in children have the potential to impact socioeconomic status in adulthood. EB problems have been associated with significantly higher rates of poor academic performance, and these children are less likely to enroll in and complete post-secondary education as adults (Burke et al., 2014; Finn et al., 2008; van der Molen et al., 2015). Without a college degree, the yearly income of a single adult is significantly reduced. Childhood diagnoses of EBs are associated with a significantly higher risk of poor or no job recommendations, an increased risk of poor work performance, and problems maintaining employment as an adult (Burke et al., 2014; Moore et al., 2018).
The Cost to the Public

The financial impact of EB problems on the public is broad. Costs of EB problems can include medical, behavioral, or therapeutic costs, costs of welfare due to school drop-out or post-secondary education that is not sought or completed, lost productivity, legal or jail costs, and costs associated with substance abuse (Christenson et al., 2016; Greenberg & Lippold, 2013; Kohlboeck et al., 2014). Since children with behavior problems seek medical treatment at a higher rate than children without behavior problems and are more likely to be enrolled in Medicaid programs, this creates a higher dependence on insurance or government assistance, which in turn creates higher costs to consumers and taxpayers (Kohlboeck et al., 2014; Visser et al., 2016).

Mental health treatment is sought for children with conduct problems at a very high rate. It is the reason for the majority of referrals to mental health clinics and inpatient treatment centers (Booker et al., 2016). A diagnosis of ODD increases the probability that a child could be diagnosed with an additional mental illness and continue to experience symptoms of ODD into adulthood (Nock et al., 2007). Interventions developed specifically to address comorbidity in EB, delinquent, and substance abusing youth have the potential to exceed more than $10,000 per child. This cost may be passed onto taxpayers in the form of Medicaid reimbursements (Dopp et al., 2014; Graaf & Snowden, 2017; Hussey et al., 2008; Knapp et al., 2006).

Delinquency and involvement with the juvenile justice system, and later the criminal justice system, is a common outcome of EB problems in childhood and adolescence (Hussey et al., 2008; Rosenblatt et al., 2000). A person that has two or more contacts with the police can cost taxpayers more than $1.3 million due to costs associated with the justice system, including court and prison and missing wages from being out of work during incarceration. Moreover,
fifteen or more contacts with the police cost taxpayers between $3.5 and $5.8 million (Cohen & Piquero, 2009).

Without intervention, childhood CD has the potential to develop into Antisocial Personality Disorder (ASPD) in adulthood. ASPD is regarded as the most severe and dangerous form of pathological behavior (Greenberg & Lippold, 2013). The costs for ASPD to the public are estimated in the millions due to the high rates for people with ASPD to drink heavily, smoke, have lower SES, and engage in criminal behavior (Farrington, 2004). If ASPD can be prevented, savings of $2 million to $5 million per person could potentially be made to the public, which accounts for savings related to the high costs of substance abuse, crime, and high school drop-out (Farrington, 2004).

**Couples’ Relationship Quality and Its Effect on Child Behavior**

Children naturally develop socio-emotional skills through their interactions with family members (Kerr & Bowen, 1988). As children learn to navigate within their immediate social systems, they also begin to generalize what they learn to larger systems. For example, they learn how to interact not only with family members but with society at large. Thus, if parents speak to each other in ways that are coercive, angry, or threatening, children will be likely to learn to use anger, coercion, and threats to interact with others. However, if parents engage with family members in ways that promote trust, healthy communication, and high levels of warmth, children will likely learn to engage with other family members, and in larger social systems, in ways that promote healthy relationships. Thus, coping skills, whether healthy or maladaptive, are developed as children interact with caregivers (Kerr & Bowen, 1988).

To the untrained eye, EB problems may appear to stem solely from the child or to be an inherent trait. Childhood EB can be attributed to a culmination of multiple environmental factors,
none more important than the qualities of the immediate family relationships. Previous research has examined the effects of marital status on parent-child relationships (Cummings et al., 1989; Goldstein et al., 2007; Melby et al., 1995; Reid & Crisafulli, 1990; Stover et al., 2012). Married couples have been associated with having children with fewer behavior problems (Cummings et al., 1989; Goldstein et al., 2007; Melby et al., 1995; Reid & Crisafulli, 1990; Stover et al., 2012).

This study addresses an under-studied area by examining both positive and negative interactive qualities of mothers and fathers, specifically interpersonal coercion. This study focuses solely on the biological parents, rather than stepparents or cohabiting partners, because it is assumed here that child behavior problems begin with discord within the original family system. A better understanding of the family relational contexts within which children’s behavior problems emerge can lead to a better understanding of how to address these problems through supportive and therapeutic interventions.

The Fragile Families and Child Wellbeing Study (FFCWS) data will be used to examine the following research questions:

1. To what extent will positive interactive qualities, such as trust, affection, support, and mutual communication, be associated with child behavior problems?

2. To what extent will negative interactive qualities, such as coercion, hostility, and absence of hope, be associated with child behavior problems?
CHAPTER 2. LITERATURE REVIEW

This chapter describes relevant theories and current literature associated with caregiver romantic relationships and their effects on child behavior problems.

Ecological Systems Theory

General Systems Theory (GST) is a broad, overarching theoretical framework positing that any unit within a larger system both impacts, and is impacted by, the greater whole and that the entirety of the whole cannot exist without the individual units (von Bertalanffy, 1972). GST has been influential in a multitude of professional disciplines such as biology, mathematics, economics, psychology, and physics (von Bertalanffy, 1972). Precise boundaries of demarcation of one system in relation to another are often difficult to determine. Under GST, child behavior problems would be assumed to be a manifestation of the child’s engagement within his or her environment, beginning with the relationships with parents and other family members. Thus, further discussion of the child’s environment is warranted.

The social sciences drew from GST to explain how a person influences, and is influenced by, her or his environment (Hepworth et al., 2010). However, Bronfenbrenner (1979) suggested that human ecological systems were more complicated than the systems described in the physical sciences, due to the unpredictability of human behavior, the capacity for spoken language, and human cognition. For example, a meta-analysis focused on the effects of couples’ relationship quality on child externalizing behavior outcomes reported only small to moderate effect sizes in a sample of 68 studies (Buehler et al., 1997). However, more recent studies focused on positive relationship qualities has found that mediating variables, such as couples’ trust and support, are predictors of positive outcomes for children (Buehler et al., 1997; Buehler et al., 1998).

Early ecological systems research focused on three broad systems that were just outside
the scope of the family system but influenced family and human development: the mesosystem models, the exosystem models, and the chronosystem models (Bronfenbrenner & Crouter, 1983). Bronfenbrenner and Crouter (1983) suggested that all three were equally as important to human development. Bronfenbrenner (1979) described his system as “a set of nested structures, each inside the next, like a set of Russian dolls,” because each system was surrounded by another larger system. The family was the central system, followed by a slightly larger system called the mesosystem, which represents the interactions between two of the systems within the microsystem, such as a schoolteacher and a parent. The exosystem surrounds the mesosystem and represents the larger systems, such as a school board, church, and community programs that a child may not interact with directly but that impact her nonetheless. Finally, the chronosystem surrounds all three smaller systems and represents society at large (Bronfenbrenner & Crouter, 1983).

A smaller system, called the microsystem, also was developed to define and describe the most intimate relationships related to childhood development (Bronfenbrenner, 1979; Bronfenbrenner & Crouter, 1983). The microsystem is the smallest, most immediate, ecological system surrounding a human being. Interactions between persons within this system are typically face-to-face (Bronfenbrenner, 1979). Microsystem relationships represent the first axes of human-environment interaction. Within the microsystem, a child grows up engaging directly with her or his immediate family members. Bronfenbrenner suggested that there are usually two older caregiver figures, with the possibility of siblings in this role. The microsystem allows the child to interact with immediate family members on a daily, often minute-to-minute basis, and the child has the closest relationships within this system (Bronfenbrenner, 1979).
Bronfenbrenner (1979) drew from Piaget’s model of child development to describe the cognitive changes that occur as a child grows. One major shift in cognition occurs when a child becomes aware of the difference between reality and imagination. A child will achieve this shift first through play and through interaction with those closest to her – those within the microsystem (Bronfenbrenner, 1979). The microsystem is also the social structure through which humans provide their children with the initial framework detailing cultural norms, customs, manners, and values. Ecological systems theory posits that caregivers transmit their ideas, perceptions, attitudes, and beliefs to the microsystem from their participation in the larger exo- and macro-systems (Bronfenbrenner, 1979). Therefore, parents transmit outside ideas and culture to their children through play and daily interaction (Bronfenbrenner, 1979).

**Family Systems Theory: Theoretical Introduction**

Family systems theory (FST) utilizes a systems perspective to examine familial relationships and the manner in which they influence family members (Kerr, 2000; Kerr & Bowen, 1988). While ecological systems theory broadly attempts to explain the manner in which familial, societal, and group systems influence individuals, FST drills down further to examine specific characteristics within the family as contributing factors in the emotional or behavioral problems individuals experience. This study will examine child behavior through the lens of FST.

In addition to its foundation in ecological systems theory, FST reflects the core tenets of Darwinian evolution theory (Kerr, & Bowen, 1988). FST posits that the family system develops a method of maintaining internal homeostasis through cooperation and emotional interdependence of its members. Emotional interdependence, also known as the “emotional system,” ensures that family members will cooperate with and rely upon one another in order to
increase the likelihood that members have access to food, shelter, and protection from harm (Kerr, 2000; Kerr & Bowen, 1988).

FST assumes that the family system is an emotional field of energy affecting and influencing each member. FST’s assumptions are twofold: while reliance on family members facilitates safety and security, interdependence undoubtedly has the potential to create tension within the family system, as stress or tension in one family member has an impact on other members (Kerr, 2000; Kerr & Bowen, 1988). Problems can occur when family systems have common goals, and individuals attempt to prevent or otherwise interfere with the larger group system from reaching its objective. This is inevitably a problem of conflict between the group and individual goals. If one family member takes on too much of the familial stress and attempts to solve its problems, this person can become vulnerable to developing emotional or behavioral problems such as internalizing or externalizing disorders, physical illness, or addiction (Kerr, 2000; Kerr & Bowen, 1988). Indeed, the impact of the emotional wellbeing of one family member can spread through a family like a field of energy.

**Bowenian Theory and Family Systems Theory**

FST evolved from Bowenian family systems theory, developed by Dr. Murray Bowen in the middle of the twentieth century. Eight core concepts were originally defined by Bowen to illustrate the dynamics of familial relationships, specifically maladaptive bonds and their effects on the entire system. Four of the eight concepts will be defined here as these are relevant to this study.

**Reciprocal Function**

Bowen likened the family system to that of the solar system with the mass and gravitational pull of each planet and sun affect the surrounding planets and suns. Similarly, the
culmination of emotional energy emitted by each member influences the emotional energies of other members (Kerr & Bowen, 1988). This idea was conceptualized within FST as reciprocal functioning. Reciprocal functioning describes the manner in which family members influence one another. Functioning positions are the conceptualization of individual family members' roles within the family and the influence they have over other members. Thus, child behavior problems can develop when there is discord within the family system (Capaldi & Patterson, 1991; Fomby & Cherlin, 2007; Fomby et al., 2016; Fomby & Osborne, 2010; Kerr & Bowen, 1988; Ratcliffe et al., 2016). FST described systemic breakdowns within the family that pose problems and set members up to experience anxiety, stress, and other negative emotions. When children are the recipients of these emotional consequences, their behaviors can become problematic due, in part, to their inability to handle and regulate emotions maturely (Kerr, 2000; Kerr & Bowen, 1988).

**Differentiation of Self**

Positive relationship qualities in parent couples have been associated with high levels of self-differentiation (Ferreira et al., 2014). Differentiation of self describes the extent to which one is affected by external familial or social stimuli versus the capacity to maintain one’s own individuality (Kerr & Bowen, 1988). The greater one's differentiation of self, the more likely the individual will maintain her or his sense of self while participating as a member of the group. A high differentiation of self allows one to utilize cognitive reasoning in the face of emotional stress to assist in making rational and clear decisions. Ideally, one’s response to emotional pressure is not one of conformity but of what is best for the individual and the group. Humans have the capacity to act as both individuals and members of a group. However, the capacity to
resist or be unaffected by groupthink, peer pressure, and other societal demands varies from person to person (Kerr & Bowen, 1988).

FST assumes that human emotional, social, behavioral, and even physical well-being is linked to family system functioning. Families who are highly differentiated (i.e., where strong individual autonomy is balanced with strong family bonds) are better equipped to overcome obstacles, decrease stress, and avoid problems (Kerr & Bowen, 1988). Flexibility is a main component of the highly differentiated family system, as family members are not dependent solely on the other members to maintain their emotional wellbeing. Each member understands that it is up to herself or himself to improve personal wellbeing by increasing self-care. Thus, individual functioning is more likely to remain stable in highly differentiated families compared to families with low levels of differentiation (Kerr & Bowen, 1988).

An individual whose differentiation of self is low (i.e., low autonomy) is more likely to conform to pressure from family or society (Kerr & Bowen, 1988). FST assumes that the desire to conform allows one to feel accepted and to gain others’ approval, rather than striving for self-approval. Often, low differentiation of self requires an individual to attempt to control others in order to gain emotional security. Kerr (2000) describes two main subtypes of poorly differentiated people: bullies and chameleons. Bullies attempt to forcefully control others, using fear as a tool to gain attention, approval, or admiration. Chameleons change themselves, using self as a tool, often betraying their personal authenticity to gain adoration and approval from others (Kerr, 2000; Kerr & Bowen, 1988).

Poorly differentiated family systems find difficulty in adapting to change and handling stressful family situations (Kerr & Bowen, 1988). This is due to the need for poorly differentiated members to overly depend on other family members for their emotional wellbeing.
Thus, the poorly differentiated family member, or members, are inflexible and struggle to function effectively during periods of stress and change. Because FST assumes that humans learn differentiation of self through their relationships with their family members and the emotional environment in which they are raised, individuals raised with poorly differentiated members tend to develop poor self-differentiation (Kerr & Bowen, 1988). Poor self-differentiation is based upon an inability to regulate emotions appropriately. According to FST, poor differentiation in couples would be linked to negative relationship qualities, lower levels of trust and support, and children with lower levels of self-differentiation. Thus, children in families who exhibit poor self-differentiation would be more likely to exhibit behavior problems (Kerr & Bowen, 1988).

**Nuclear Family Emotional Process**

Bowen proposed that the nuclear family has the capacity to create or promote emotional and social problems. FST suggests that differentiation of self is the most influential factor in the protection from clinical disorders, and anxiety is the most influential factor in promoting clinical disorders (Kerr & Bowen, 1988). Although Bowen did not believe that family problems could create physical problems, he suggested that they could exacerbate or promote them. Bowen observed patterns of behavior within the nuclear family that promote anxiety. Three major patterns of behavior that impact child behavior include conflict within the marriage, there are emotional problems that exist within at least one spouse, and at least one child (Kerr, 2000).

FST posits that marital conflict can lead to the deterioration of a romantic partnership. Poorly differentiated marital partners are at a higher risk for developing marital conflict during high levels of anxiety. As anxiety increases within the partnership, each partner begins to resent and makes attempts to control the other. Couple-systems often believe that their personal anxiety would decrease if the behavior of their partner changed. Thus, controlling the emotions and
behaviors of a partner can become an unconscious strategy commonly used to reduce the anxiety within the self (Kerr, 2000; Kerr & Bowen, 1988). Dysfunction in one spouse can lead to the exertion of pressure and an increase in emotional and physical problems on the other. For example, Partner 1 may believe that Partner 2 must think and act in ways that make Partner 1 comfortable and emotionally secure. Partner 2 often yields to the pressure of Partner 1. Yet during times of increased anxiety and stress, the demands of Partner 1 can create or exacerbate social, emotional, or physical problems in Partner 2. Not only does marital conflict affect the partners within the romantic relationship, but it can also increase anxiety in the other family members, often the children.

The FST concept impairment of the child refers to the extent of symptoms exhibited socially, behaviorally, or emotionally by the child that are indications of higher anxiety and lower differentiation of self and are influenced through the relationships with the caregivers (Kerr & Bowen, 1988). FST suggests that some parents may use the child as a tool to manage their own anxiety through the perceptions of wellbeing that they impose on the child. If a caregiver perceives something wrong with her or his child (whether or not there actually is something wrong), she or he may respond in neurotic, controlling, or other maladaptive ways in order to fix the child, thus decreasing the caregiver’s anxiety. FST assumes that as differentiation of self is higher in caregivers, so shall the differentiation of self be in the child, and the lower the impairment of the child would be expected to be. Alternatively, as anxiety is higher in the caregiver, higher rates of clinical problems in children would be expected (Kerr & Bowen, 1988).
Triangles

FST posits that two-person relationships can exist peacefully as long as the anxiety or conflict within a relationship remains relatively low. This is something that is common in many partners who both have high levels of self-differentiation. However, FST predicts the emotional stability to be short-lived between couples in a relationship who are poorly differentiated due to the inevitable tension that is created between partners (Kerr & Bowen, 1988). As anxiety and tension increase within any two-person system, a third person often becomes involved to help manage the emotional burden. Thus, the triangle is considered in many families to be the smallest, relatively stable unit within the family system (Kerr, 2000; Kerr & Bowen, 1988). Just as three legs are needed to balance a stool, at least three people are enlisted to balance the weight of the anxiety within a family. When anxiety is allowed to flow between three family members, anxiety can be distributed more evenly, thus creating less of a burden for the family members. For example, when a married couple experiences friction within their two-person relationship, one partner may vent feelings to, or rely on, another family member. This creates a triangle between the married couple and the third family member, often the child (Kerr, 2000; Kerr & Bowen, 1988).

Although triangles can stabilize familial relationships, they also create an odd-man-out at various points in time (Kerr, 2000; Kerr & Bowen, 1988). This creates a pattern of attempts to maintain or gain homeostasis within the triangle. Two members will be considered the insiders while there is the odd-man-out or outsider. The outsider will attempt to gain emotional closeness to one of the insiders until the outsider is considered an insider and one of the original insiders has been pushed out. Triangles create negative emotional health due to feelings of anxiety and inadequacy at being on the outside of the triangle. FST assumes that the stress of the triangle
combined with the inability to appropriately regulate emotions contributes to behavior problems in children (Kerr, 2000; Kerr & Bowen, 1988).

FST first conceptualized scapegoating as the manner in which one part of a system comes together to focus on another part of the system. For example, the marital system sometimes transfers stress between the couple onto the child. FST posits that rather than facing problems within the romantic relationship, the couple unites by focusing their energy on the problems, either fancied or real, with their child (Kerr, 2000; Kerr & Bowen, 1988; Nichols & Schwartz, 1991). This is one form of triangulation which forces the child to become the outsider in order to reduce the stress within the couples’ relationship. Each actor in the scapegoating process plays a role, including the child, who may act out to gain attention, therefore reducing marital stress (Kerr, 2000; Kerr & Bowen, 1988). Additionally, scapegoating has been identified as a primary cause in the development of externalizing behavior problems (Patterson, 2002; Reid & Patterson, 1989).

**The Spillover Hypothesis**

Originating from sociological literature on the role of employment on parenting and childrearing, the spillover hypothesis suggests that stress within systems may move, or spill over, to other systems (Repetti, 1987, 1994, 1997; Sears et al., 2016). Other social science researchers have used the spillover hypothesis to examine the effects of stress on the marital system and how it may spill over onto the child, thus affecting child behavior (Easterbrooks & Emde, 1988; Erel & Burman, 1995; Stover et al., 2012; Stroud et al., 2015). Conversely, higher levels of support from a spouse are associated with more energy and warmth the parent has to give to her or his child (Easterbrooks & Emde, 1988).
Research has used the spillover hypothesis as a framework to examine the relationship between couples’ relationship quality and child behavior problems (Stover et al., 2012; Stroud et al., 2015). Stover et al. (2012) examined the associations between genetic and nongenetic traits in 308 parents who had adopted a child. The authors of this study found that toddler aggression was associated with the spillover of marital hostility and hostile parenting of the adopted parents and not the antisocial behavior of birth mothers. A study with a sample of 148 families examined conflict within the marital system and whether it would impact, or spillover, onto parents’ ability to respond appropriately to their children (Stroud et al., 2015). These authors found that marital quality affects the responsiveness of the child to the mother but not necessarily the responsiveness of the mother to her child, suggesting different pathways are involved for the effects of marital stress on maternal and child interactive behavior (Stroud et al., 2015).

**Belsky’s Determinants of Parenting**

Belsky’s determinants of parenting model, presented first in his influential 1984 article, was developed in response to the research on the etiology of child maltreatment (Belsky, 1984). The model of parenting Belsky presented represented a summary of knowledge at that time organized in a social-ecological framework, a reflection of the influence of Bronfenbrenner’s theory. Belsky’s (1984) determinants of parenting model identified three major predictors of parenting and child development. The first predictor considered parents as individuals, particularly the ways in which their own caregiving experience affects parenting their own children; the second considered child contributions to parenting, particularly the contribution of difficult temperament to parental treatment of the child; and the third considered how the amount of stress versus the amount of support a parent has contributes to the quality of the parent-child relationship (Belsky, 1984). This study examines this third predictor in detail.
Belsky’s determinants of parenting model emphasizes the importance of parental support, as higher rates of support have been associated with positive parenting practices (Bandura & Walters, 1959; Belsky, 1984; Sears et al., 1957). Marital support, social networks, and employment are the three overarching types of support explored in the model, and this study focuses on the contribution of marital support on child behavior. Belsky (1984) posits that the marital support system is the most important type of support a parent can receive as it has been found to be associated with increased warmth and authoritative parenting practices. This model provides a twentieth-century review of the contribution of couples’ relationship quality to child development. More specifically, portions of Belsky’s (1984) literature review are focused on the effects of marital quality on the treatment of the child. Belsky posited that parents have the capacity to perform well in their parenting role as long as certain environmental conditions are met (Belsky, 1984). In this case, spousal support is the environmental condition to which Belsky was referring.

After its publication and in order to further advance his determinants of parenting process model, Belsky conducted his own research into marital quality and its effects on the parent-child dyad (Belsky, 1996; Belsky et al., 1989a; Belsky et al., 1989b; Belsky et al., 1991; Volling & Belsky, 1991). In order to measure marital quality, an instrument created by Braiker and Kelly (1979) was utilized throughout most of his research (Belsky, 1996; Belsky et al., 1989b; Volling & Belsky, 1991). It is noteworthy that this scale reflects the determinants of parenting process model as a measure of support versus stress, as these concepts measure a continuum of love and conflict on a 25-item scale with four sub-scales: love, willingness to stay together, ambivalence, and conflict (Braiker & Kelly, 1979).
Belsky was particularly interested in the father’s role in the family triad, as much of his research was focused on the father’s experience of marital support and parenting. In some cases, findings suggested that men, more than women, were more attentive toward their children when they reported feelings of satisfaction in their marriages (Belsky, 1996; Belsky & Volling, 1987; Belsky et al., 1991; Volling & Belsky, 1991). Two longitudinal studies of 100 and 119 families, respectively, examined marital change as couples transitioned into parenthood and into the parent-child dyad. These studies found that fathers had lower levels of warmth toward their children when marital quality was rated poorly. However, mothers’ warmth remained unaffected by marital quality ratings (Belsky et al., 1991). In a study of 126 father-son dyads, Belsky (1996) found that sons were rated as more securely attached to fathers who reported higher rates of love and communication from their spouse. Another sample of 69 Caucasian, working and middle-class families, found that fathers who reported higher levels of marital conflict were linked to higher levels of disengagement with their children compared to fathers reporting higher rates of love from their spouses (Jain et al., 1996).

Belsky often combined marital quality with other relevant variables in his determinants of parenting model. For example, a study by Belsky et al. (1989b) used marital support as a mediating variable to examine its association with poor parenting practices in parents who had been abused or neglected as children. Study outcomes indicated that supportive marriages can protect against intergenerational transmission of abuse and neglect (Belsky et al., 1989b). Another study of 119 dual- and single-earner families focused specifically on fathers and whether they would be more or less attentive to their children depending on the measure of marital support received. The results of this study indicated that fathers who received more marital support were rated as having higher levels of involvement and warmth toward their
Belsky’s research examining father’s experience of marital quality and parenting also rendered some mixed results. A sample of 173 married couples and their infants found that both men and women who reported feelings of increased marital support were rated as warmer and more nurturing than those parents reporting less marital support (Belsky et al., 1989b). Belsky and Woodworth (1996) examined the effects of marital quality on child behavior problems in 69 Caucasian families living in Pennsylvania. Each of the families selected for the study was chosen because they were intact, with first-born male infants. The study reported that males were chosen over females because boys are more likely to exhibit behavior problems. Findings from this study indicated that there was no significant relationship between marital quality and child behavior problems (Belsky & Woodworth, 1996). Also, no significant findings were reported in a study by Belsky et al. (1995) who studied a sample of 135 parents and their first-born male infants to determine whether marital quality was associated with child attachment security.

In the decades since his original article, the majority of research has continued to support Belsky’s claim that marital support impacts the relationship quality of the parent-child dyad (Belsky, 1984; Hsieh et al., 2017; McCurdy, 2005; Simons et al., 1993; see Borić et al., 2011, however, for an exception). Simons et al. (1993) used structural equation modeling (SEM) to examine a sample of 351 Caucasian families in rural Iowa and found that higher levels of marital support were associated with a lower likelihood that mothers would exhibit harsh parenting practices. Hsieh et al. (2017) and McCurdy (2005) utilized Belsky’s determinants of parenting model from which to base their studies examining parental support and their effects on child punishment. McCurdy (2005) implemented a Healthy Start program in Hawaii and found, in a sample of approximately 200 parent-child dyads, that higher levels of parental support were
linked to lower levels of harsh punishments. Hsieh et al. (2017) utilized a correlational, longitudinal study examining 4,754 Taiwanese families and found that higher levels of marital conflict were linked to higher levels of harsh parenting practices. Sevigny and Loutzenhiser (2010) studied 62 cohabiting couples and found that fathers who reported higher levels of marital quality also reported feeling higher levels of competence, or self-efficacy, in the parenting role. Outcomes from these studies support Belsky’s theory that parental support mediates child maltreatment outcomes (Belsky, 1984; Hsieh et al., 2017; McCurdy, 2005; Simons et al., 1993). Many of these early studies used small, homogeneous samples, particularly the studies that focused on fathers- or sons-only in small, Caucasian-majority samples. This lack of rigor within the sampling methodology may have accounted for the differences in study outcomes.

Additionally, throughout his model Belsky (1984) references mental health as a potential barrier to positive parenting practices. He posits that the state of mental health can be influenced by the type of support received from one of the three support systems: work, spouse, and social. Maternal depression has since been linked with child behavior problems (Gajos & Beaver, 2017; Park et al., 2018). A sample of 191 mother-child dyads found that three- and five-year-old children were more likely to have problems with executive functions and internalizing/externalizing behavior problems if their mothers’ symptoms of depression increased over time (Park et al., 2018). A large sample of 6,961 kindergarten children and their mothers examined the effects of depression on child antisocial behavior. The study found that maternal depressive symptoms increased the risk for child antisocial behavior in later life (Gajos & Beaver, 2017).
Current State of the Knowledge

More Recent Research Growing Out of Belsky’s Model

Belsky’s (1984) model was utilized as the theoretical basis for a longitudinal study using a secondary data analysis with the Fragile Families and Child Wellbeing Study (Ratcliffe et al., 2016). This study was different from the previous studies because it utilized a large, national database which yielded a sample of 1,318 families. The dataset used in the Ratcliffe et al. (2016) study is the same dataset used for the present study.

Couples’ relationship quality was measured using a range of both positive and negative statements that came directly from the FFCW questionnaire. For example, couples were asked whether their partners were “fair and willing to compromise” and whether their partner “insults or criticizes” them. Ratcliffe et al. (2016) were interested in whether couples’ relationship quality was related to child behavior at one, three, and eight years of age. Child behavior was measured using the Child Behavior Checklist. At age one, positive relationship quality as reported by both mothers and fathers predicted positive parent-child engagement for both mothers and fathers when the child was one-year and three-years-old. Additionally, mothers’ but not fathers’ reports of positive relationship quality during the first year of her child’s life was associated with lower child behavior problems at ages five and nine (Ratcliffe et al., 2016).

Couples’ Relationships as Measured through Demographic Variables

Many researchers have utilized a demographic approach to couples’ relationships on child outcomes, relying more on various social characteristics or status categories. Most research examining the effects of couples’ relationship characteristics on child outcomes did so by studying marital status along with socioeconomic status, education, religious non-attendance, child gender, or age of the parent and their impact on child behavior. These demographic
variables have focused less on couples’ relationship quality and more on how the demographic variables themselves have an impact on child behavior (Roy et al., 2019; Schottenbauer et al., 2007).

Indeed, not all research has focused on marital quality through the lens of Belsky’s model. Most early research that examined the effects of couples’ relationship characteristics on child outcomes did so by studying marital status alone as a demographic variable. These studies indicated that stable two-parent relationships have a positive effect on child emotional and behavioral outcomes (Berger & McLanahan, 2015; Carlson et al., 2011; Goldberg & Carlson, 2014). The early concepts of what constituted relationship quality varied and were defined differently across studies (Buehler et al., 1997; Buehler et al., 1998; Emery, 1982). Finally, the concept of “couples’ relationship quality” was often fleshed out into two distinct independent variables: marital status and conflict type (Buehler et al., 1997; Emery, 1982). Thus, this review of the literature will discuss both marital status and conflict type as two defining independent variables that have been studied over many decades to examine their effects on child behavior.

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Marital Status and Child Behavior

Early research examining the covariation of couples' relationship characteristics on child outcomes often relied on marital status alone as an independent variable. Marital status has been operationalized as married, never married, widowed, divorced, and cohabiting. Recent literature reported that children living with two married parents have fewer behavior problems and more positive cognitive, academic, and psychological outcomes than those in cohabiting or single-parent households (Bachman et al., 2009; Berger & McLanahan, 2015). In contrast, when couple relationships are unstable, children tend to be rated higher on scales of EB problems (Capaldi & Patterson, 1991; Fomby & Cherlin, 2007; Fomby & Osborne, 2010; Fomby et al., 2016).

Decades of empirical literature lend credibility to the assertion that divorce has the potential to impact child behavior negatively (Fomby & Osborne, 2010; Hetherington et al., 1976; Peterson & Zill, 1986). Children from divorced and one-parent households tend to exhibit higher levels of aggression than children living with married parents (Fomby & Osborne, 2010; Hetherington et al., 1976; Peterson & Zill, 1986). Peterson and Zill (1986) used a national sample of 1,400 families who had experienced divorce in order to examine the effects on child behavior in 12 to 16-year-olds and found that as the number of transitions (i.e., separations or divorces) increased, behavior problems increased.

The concept union instability is a measure of stability related to the biological parent(s) or the adults who take on a parental role to the children in the home, and it is measured by how many unions or dissolutions occurred. In the family system, unions refer to the number of marriages or cohabitations that occurred, whereas dissolutions refer to the number of divorces or break-ups (Capaldi & Patterson, 1991; Fomby & Cherlin, 2007). Empirical research lends credibility to the assertion that children who have been exposed to multiple unions and
dissolutions of the parental system tend to demonstrate problematic development or behavior (Capaldi & Patterson, 1991; Hetherington et al., 1976). Multiple study outcomes have indicated that both the conflict prior to and continued conflict after divorce has deleterious impacts on child adjustments and behavior (Capaldi & Patterson, 1991; Fomby & Cherlin, 2007; Fomby & Osborne, 2010; Hetherington et al., 1976).

Fomby and Osborne (2010) examined union transitions and dissolutions in a sample of 2,971 families involved in the Fragile Families and Child Wellbeing (FFCW) longitudinal study. Using OLS regression, the authors found that children’s behavior problems decreased as couples’ relationship quality increased. Child behavior problems were found to be associated with couples’ conflict regardless of whether the couple was married, divorced, or had experienced multiple unions. The unions that did not succeed were found to lack support and effective communication (Fomby & Osborne, 2010).

**Type of Conflict: Marital Conflict and Hostility and Child Behavior**

Early meta-analyses by Buehler et al. (1997) and Reid and Crisafulli (1990) examining associations of conflict between couples and child behavior problems found only small to moderate effect sizes in 66 (m = .19) and 33 (m = .16) studies, respectively. However, results indicated that more research was warranted to identify which trait(s) that effect couples’ relationship quality were linked to child behavior problems. Buehler et al. (1998) further identified overt and covert styles of inter-parental conflict (IPC). Overt conflict refers to physical and verbal altercations between parents, while covert hostility refers to passive-aggressive behavior, triangulation, scapegoating, or silent tension between parents (Buehler et al., 1998). A reanalysis of the meta-analysis referenced above that isolated overt IPC increased the effect size.
from .19 to .35, thus emphasizing the damaging effects of overt-parent conflict on the behavior of children and adolescents (Buehler et al., 1997; Buehler et al., 1998).

Couples’ relationship quality also has been studied by examining concepts such as marital hostility and conflict to describe and measure negative qualities within couples’ romantic relationships (Cummings et al., 1989; Goldstein et al., 2007; Melby et al., 1995; Reid & Crisafulli, 1990; Stover et al., 2012). These concepts have been operationalized in similar and dissimilar ways. Goldstein et al. (2007), for example, operationalized conflict by defining and rating the following: open hostility, frequency, and chronicity of conflict, apathy, physical/non-physical conflict, avoidance/capitulation, child involvement, stalemate, and verbal aggression. Hostility was operationalized as rates of verbal and physical aggression in a study by Cummings et al. (1989). Stover et al. (2012) utilized the Hostility Index of the Behavior Affective Rating Scale (Melby et al., 1995), which operationalizes hostility along a 7-point Likert scale using the following concepts: criticizing, shouting, and ignoring.

Empirical research has indicated that marital conflict and hostility have been significantly associated with externalizing behaviors in children (Ablow et al., 2009; Goldstein et al., 2007; Katz & Woodin, 2002). Katz and Woodin (2002) examined the differences in conflict type to explore whether specific interactions within the marital system had greater or less impact on child behavior. A sample of 126 couples with a 4- or 5-year-old child was video recorded throughout a stressful situation and then the transcript was coded to place couples into one of three categories: high conflict, hostile/withdrawn, and engaged groups. Katz and Woodin (2002) found that hostile/withdrawn couples had children with the highest levels of externalizing behavior problems and poor coping skills than any other group. The authors use the spillover effect to explore the results of their study as hostile/withdrawn partners may not have the energy
or the insight to be open, loving, and warm with the children who need them. Thus, children, when faced with problems, also withdraw or avoided problems and most often utilize maladaptive coping skills instead (Katz & Woodin, 2002). The study by Goldstein et al. (2007) was unique in that it not only examined couple conflict, but it looked specifically at subtypes of childhood behavior problems. This study examined 178 mothers, fathers, and their three-year-old children and found that as the conflict between couples increased, oppositional defiance and hyperactivity in children also increased (Goldstein et al., 2007). Finally, Ablow et al. (2009) sought to explore the specific characteristics within a marital conflict that influence child outcomes. A longitudinal design and a sample of 100 couples with an elder male child within the ages of four and six were used to examine the child’s perception of the couple’s relationship and found that children had the capacity to report reliable information regarding their parents’ relationship quality (Ablow et al., 2009). Criterion validity was reported within this study, as the parent and child reports of marital quality were found to be significantly correlated (Ablow et al., 2009).

Couples’ Stress Versus Support and Child Behavior

The quality of a couple’s relationship has been linked to the level of stress or support experienced by a parent (Belsky, 1984; Simons et al., 1993). Simons et al. (1993) examined spousal support using a 20-item self-report instrument with both supportive and unsupportive items within the measure. For example, helping was considered supportive while criticizing or ignoring was considered unsupportive (Simons et al., 1993). The authors of this study underscored the importance of utilizing both positive and negative items of support within the scale to obtain an overall score of support. Their mean score of spousal support was designed to take into account that the behavior of some people may not be consistent. For example, one may
show support and also behave in ways that are unsupportive toward their spouse (Simons et al., 1993).

**Intervention Studies**

Interventions targeting the quality of couples’ relationships have found an improvement in child behavior as couples’ relationship quality improved (Beauchaine et al., 2005; Ireland et al., 2003; Robinson & Neece, 2015). A small sample of 37 couple-child dyads who participated in an intervention that assisted in increasing couples’ support and communication found a positive association between couples’ support and communication and the absence of child behavior problems (Ireland et al., 2003). In an intervention study of 44 parents and children, Robinson and Neece (2015) found that in children with developmental delays and behavior problems, as marital satisfaction increased, parental stress and child behavior problems decreased over the course of the intervention. A longitudinal cohort study by Beauchaine et al. (2005) examined the effects of marital adjustment and satisfaction using the Dyadic Adjustment Scale (Spanier, 1976) and its relationship to child behavior problems in an intervention study using 514 families with children between the ages of three- and eight-years. The authors reported that as marital satisfaction increased, behavior problems in children decreased (Beauchaine et al., 2005).

**Positive Relationship Qualities and Child Behavior**

Studies have indicated that couples who report feeling supported have higher parental engagement and children with lower rates of behavior problems (Carlson et al., 2011; Goldberg & Carlson, 2014; Suarez & Baker, 1997). In an early longitudinal study, Suarez and Baker (1997) examined the effect of spousal support on child behavior in a small sample of 75 recruited families who had children with behavior problems. Parental support was measured using a 6-
point Likert scale using the Spousal Agreement and Support Scale (SASS) that was developed during the study, and the results indicated that increased support was associated with decreased child behavior problems (Suarez & Baker, 1997). Data from the FFCWS were used to measure the relationship between couple relationship quality and parental engagement of co-resident or married biological parents and their toddlers \((n = 1,376)\) (Carlson et al., 2011). A factor analysis conducted for each year indicated that the questions chosen from the Couples’ Relationship Quality (CRQ) scale had high reliability \((\alpha = .75, .85, \text{ and } .88)\). Results from this study lend credibility to the assertion that as couples’ relationship quality increases, parental engagement also increases (Carlson et al., 2011).

Recent research has examined couples’ relationship quality on child outcomes using the FFCWS by constructing variables using the CRQ as a measure of couples’ relationship quality (Berger & McLanahan, 2015; Carlson et al., 2011; Goldberg & Carlson, 2014). For the purpose of measuring couples’ relationship quality, the FFCWS developed its own scale, which will be discussed in detail in the following chapter. Goldberg and Carlson (2014) utilized a sample of 945 families from the FFCWS to examine whether couples’ supportiveness had an impact on child behavior. The authors selected five questions from the CRQ to construct a measure of supportiveness \((\alpha = .73)\) and two sets of control variables for the multiple regression analysis. The first set of control variables focused on the biological parents and included their marital status and age at the birth of the focal child, race, education, income-to-poverty ratio, risk of depression, child gender, and attendance at religious services. The second set of control variables focused on the child and included the focal child’s gender and temperament that was measured at the one-year survey along with the maternal temperament report. Goldberg and Carlson (2014) found that child behavior problems decreased as couples reported an increase in perceived
support over four waves of data from child ages one-, three-, five-, and nine-years. Berger and McLanahan (2015) utilized a sample of approximately 1,750 child-parent triads in three separate cohorts over a period of 11 years with the FFCWS data. The authors were interested in parental relationship quality as measured by the CRQs as father’s treatment of the mother ($\alpha = .80$) and the quality of the co-parenting relationship ($\alpha = .62$), which measured the shared responsibilities of childrearing between parents. Parenting quality was operationalized by spanking frequency and rate of parental engagement. Married and cohabiting biological parents were found to have children with lower rates of behavior problems than children living with other two-parent families, yet there was no relationship found between parent relationship quality and parenting quality (Berger & McLanahan, 2015). Turney (2015) utilized data from the FFCWS related to parental relationship quality in a study examining the effects of incarceration on relationship quality. Turney (2015) pulled questions from the CRQ scale and ran factor analyses to construct and support two dependent variables based on the supportiveness of couples’ relationship quality ($\alpha = .76$ for mothers).

**Limitations**

Limitations to Belsky’s studies include poor internal and external validity for the reasons mentioned here. First, most of the samples lacked racial and geographical diversity as each study included mostly Caucasians from the Northeastern United States (Belsky, 1996; Belsky et al., 1989b; Villing & Belsky, 1991). The samples from which Belsky collected data were not randomly chosen, nor were they randomized, as many of these families were involved with community projects or were involved with other research projects (Belsky, 1996; Belsky et al., 1989b; Villing & Belsky, 1991). Finally, the age of the child is a limitation as marital quality may change over the course of the child’s lifetime. Although the studies are longitudinal, a large
majority of his work on marital quality did not examine these effects on parent-child relationships of children over the age of three years (Belsky, 1996; Belsky et al., 1989b; Volling & Belsky, 1991).

More recent empirical literature focused on couples’ relationship quality and child outcomes utilized larger sample sizes to increase external validity and statistical power (Berger & McLanahan, 2015; Carlson et al., 2011; Robinson & Neece, 2015). However, external validity was affected in a few recent studies due to small sample sizes or homogeneity of samples (Ablow et al., 2009; Robinson & Neece, 2015). The research based on the FFCWS used maternal and paternal self-reports for both parenting and relationship quality, and this creates the potential for over- or under-reporting feelings (Berger & McLanahan, 2015; Carlson et al., 2011; Robinson & Neece, 2015). A significant limitation to inferring causation is measuring the temporal order between whether couples’ relationship quality affects child behavior or whether child behavior impacts couples’ relationship quality. Researchers either did not control for temporal order or reported that they were unable to completely control for it over time using a fixed-effects analysis and SEM (Ablow et al., 2009; Berger & McLanahan, 2015; Carlson, et al., 2011). Additionally, dimensions of anger within the couples’ relationship have not yet been explored conceptually.
CHAPTER 3. METHODOLOGY

Purpose

This dissertation examines associations between couples’ relationship qualities and child externalizing behavior problems. Three panels were taken from a nationally representative dataset, the Fragile Families and Child Wellbeing Study (FFCWS), for the purpose of conducting a secondary data analysis utilizing a quantitative approach utilizing both longitudinal and cross-sectional analyses. This study draws from FST and Belsky’s determinants of parenting model to develop its research questions.

The sample chosen for this study is married and cohabiting biological parents, rather than stepparents or other potential caregivers for the children, in order to control for the variance associated with the influences of non-biological caregivers and the family circumstances associated with them. While previous empirical research has studied broad constructs of positive and negative relationship qualities in relation to child behavior, this study examines associations among specific emotional qualities within the couple’s relationship and their child’s behavior. This study is guided by the following research questions.

Research Questions

1. To what extent will positive interactive qualities, such as trust, affection, support, and mutual communication, be associated with child behavior problems?

2. To what extent will negative interactive qualities, such as coercion, hostility, and absence of hope, be associated with child behavior problems?

The overarching hypothesis of this study states that as couples report positive qualities within their relationships, children will be rated as having lower levels of behavioral problems and vice-versa.
The following are the specific hypotheses of this dissertation:

a) It is hypothesized that affection/support in couples’ relationships will be inversely associated with their children’s behavior problems.

b) It is hypothesized that coercion in couples’ relationships will be positively associated with their children’s behavior problems.

c) It is hypothesized that instability in couples’ relationships will be positively associated with their children’s behavior problems.

**Fragile Families and Child Wellbeing Study Data**

The FFCWS is a longitudinal study that began collecting its first waves of baseline data in 1998 and 1999. To collect its sample, the study targeted over 75 different U.S. hospitals and randomly selected birthparents of newborn infants. This was done purposefully as it was assumed that both the biological mother and biological father would be in the same place at the same time. This plan to interview both parents was strategic and cost-effective, as both parents were likely to be in the hospital prior to discharge and at least one partner within those unmarried or non-romantic couples that were selected could have been difficult to contact outside of the birthplace (Reichman et al., 2001). The baseline interview utilized separate questionnaires for mothers and fathers, and it collected basic demographic data that was not asked again in later interviews, such as age, race, and child gender.

Once a child was chosen for the study, the FFCWS followed the focal child and his or her parents over the course of 15 years. Though initial interviews were done in-person, later waves of data were collected either in-person or via phone interviews when the focal children were one, three, five, nine, and 15 years-old, with 2013 being the last year that data were collected.
(Reichman et al., 2001). Biological mother and biological father interviews included questions related to various topics such as personal finances, attitudes toward relationships, socioemotional health, home and neighborhood status, and demographic data. Questions also were posed to mothers about fathers’ viewpoints on the same topics and vice-versa. Both mothers and fathers were asked questions about her or his children, yet there were times that only mothers’ data were collected when child data was concerned. For example, only mothers were asked certain questions pertaining to the behavior of their child; therefore, the data may not reflect the perception of the father as much as the mother.

The overarching goals of the FFCWS was to assist policy makers and community leaders in making changes or offering assistance to welfare reform, father roles, and childbirth to non-married families. Outside of this stated goal, many other questions were asked, investigated, and answered using the FFCWS data where children and families were concerned. The concept fragile was meant to describe and emphasize the multiple risk-factors faced by some children and their families. The FFCWS defined some risk-factors demographically as poverty, single-parent households, education, and race (Reichman et al., 2001). The total sample collected was 4,700 focal children and their biological parents; however, non-married families were oversampled (n = 3,600) and married families were capped at n = 1,100.

Lack of support is a risk factor that is conceptualized throughout the study in a variety of ways. For example, child financial support, whether or not the child spends time with grandparents, and the number of nights the child spends away from parents or the home are just three examples of how lack of support is conceptualized. Lack of support in parents’ relationships is measured using specific interactive qualities of the couples' relationships, which are hypothesized to influence qualities of their interactions with children. A foundational
assumption of the study is that the number of risk factors present in families is likely to be associated with vulnerabilities within familial relationships.

**Sampling**

**External Validity**

External validity is demonstrated when a study is able to generalize its findings to a larger population (Rubin & Babbie, 2008). Sample size and sample makeup are two factors that are indicative of the generalizability of a study. In order to increase external validity through sampling, \( n \) should be greater than one hundred, the sample should be randomly selected, and the population to which the study is generalized must be equally represented within the sample (Knoke et al., 2002). External validity can be increased by random sampling, which ensures that the sample is representative of the larger population. However, alternative methods are often used, as random sampling is not always feasible (Knoke et al., 2002). While the FFCWS oversampled fragile families, it offers the option of weighted variables that can be used in statistical models, which redistributes the data to be representative of any city greater than 200,000 people (Reichman et al., 2001). This study does not use weights; therefore, this sample is generalizable only to non-marital births in U. S. cities of more than 200,000 people (Reichman et al., 2001).

**Panel Data**

The FFCWS categorized its data using both waves and years. Data that were collected at the birth of the focal child are referred to as the baseline data set, or wave one; year-one or wave two data were collected when the focal child was one-year-old; wave three or year-three data were collected at age three of the focal child; wave four or year-five data were collected at age five of the focal child; wave five or year-nine data were collected at age nine of the focal child;
and wave six or year-fifteen data were collected when the focal child was 15-years-old. For this proposal, the data will be categorized using the year and age of the focal child.

Independent variables were chosen for this study from the complete Couples’ Relationship Quality Scale (CRQ-S) that was created by the FFCWS. Scales such as the Stanley and Markman (1992) Commitment Inventory and the Booth, Johnson, and Edwards (1983) Marital Instability Index were used by the FFCWS to create the CRQ-S by taking and modifying their questions to create a new relationship quality scale. The CRQ-S questionnaire was given to parents only at the year-five and year-nine interviews and this is the reason that these two panels were chosen for this study. The Child Behavior Checklist (CBCL) (Achenbach & Rescorla, 2000), utilized for the dependent variable, was given at year-three, year-five, year-nine, and year-fifteen; however, this study will only utilize the year-five and year-nine questionnaires. Baseline data chosen for this study are demographic variables that were not asked at any other time point. These three separate measures were used to examine whether, and to what extent, child externalizing behavior is associated with couples’ relationship quality (see description of all measures below).

**Sample**

The FFCWS used stratified random sampling to select 20 U. S. cities based on their policies and labor markets. Cities were categorized and then chosen randomly by policies that were rated as high, moderate, or low in welfare generosity and child support enforcement. From there, a total of 75 hospitals were randomly selected within the twenty cities and research participants were randomly selected at the birth of the focal child at the hospital. In order for the study to select random numbers of fragile families, criteria were set that capped the number of families included.
The sample utilized for this study was taken from the FFCWS original sample of over 4,000 focal children and their biological mothers and fathers. Each family was originally recruited for the study at the birth of the focal child in 1998 or 1999 and followed for 15 years post-recruitment. It is important to note that in this sample, 41% of research participants were married and living together, and 59% were cohabiting. This study examines how relationship quality in married and unmarried cohabitating couples might be associated with their children’s externalizing behavior problems.

The FFCWS sample decreased from approximately 4,898 focal children and their biological mothers and fathers to 768 to 907 focal children and their biological parents, depending on the type of missing data and attrition.\(^1\) To determine what caused the large gap in missing research participants, several steps were taken. First, frequency distributions and summations were run on each variable to determine whether there were problems within certain variables. Second, tables were calculated to produce the entire variable to determine whether missing variables were causing missing cases. The missing data were shown to result primarily from attrition from the couples’ relationship quality variables and the year-nine child behavior variables. Baseline measures of religious non-attendance also had high rates of missing data.

**Dependent Variables**

**Child Behavior Checklist**

The FFCWS measures externalizing behavior problems in children through a subscale of the CBCL (Achenbach & Rescorla, 2000). The CBCL is widely considered the gold standard measurement instrument for behavior problems in children and provides a basic division of these as externalizing and internalizing behavior. There are two versions of the CBCL, one each for

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\(^1\) Numbers reflect the largest sample sizes from the twelve total regressions.
preschool and school-age children (Achenbach & Rescorla, 2000). The preschool CBCL measures behavior in children 18 months to 5 years of age, whereas the school-age assessment measures behavior for children ages 6 through 18 years of age. Each of the CBCL assessments utilizes a multi-informant method for parent and teacher report and includes an adolescent self-assessment. In the FFCWS, the CBCL preschool assessment was used when children were ages three and five, and the CBCL school-age profile was used when the children were age nine. Therefore, both the CBCL preschool and school-age assessments are used in this study (Reichman et al., 2001).

The content validity of the CBCL was originally developed based upon literature, theory, and consultations with experts in the field of child development and behavior (Ang et al., 2012; Murray et al., 2014; Rijlaarsdam et al., 2016). Bitencourt et al. (2015) reported test-retest reliability for CBCL in a study using a sample of 53 children, their parents, and four teachers from a public school in Brazil. This study measured child behavior using both the CBCL and the TRF in order to include information about child behavior both at home and at school, respectively. The reliability of this scale is strong, with $\alpha = 0.87$ far exceeding the standard expected $\alpha = 0.70$ (Bitencourt et al., 2015).

The CBCL has also demonstrated high levels of internal validity (Aebi et al., 2013; Ang et al., 2012). Construct validity strengthens internal validity, because it allows the researcher to infer whether the variables are conceptualized and operationalized based on the theory from which they were drawn. This can be further established by comparing measures that were derived from the same or a similar theoretical basis (Anastas, 1999). Construct validity has been demonstrated for the CBCL (Achenbach et al., 2003) by comparing it to the ODD-dimension scale (Stringaris et al., 2012) using factor analysis (Aebi et al., 2013). Rijlaarsdam et al. (2016)
utilized a sample of 3,136 families to compare the CBCL to the Berkley Puppet Interview (BPI) (Ablow & Measelle, 2003), and the Pearson correlation was calculated for multiple informant scores for both oppositional and aggressive behavior yielding $r = .87$.

Criterion validity is demonstrated when one measure can be compared to another external criterion, or measure (Rubin & Babbie, 2008). A study by Boggs et al. (1990) measured criterion validity between the CBCL and the Eyberg Child Behavior Inventory (ECBI) (Eyberg & Ross, 1978) with a sample of 159 clinically referred children, ages 4- to 16-years-old. Researchers examined associations among the CBCL externalizing and internalizing behaviors and the ECBI problem and intensity scales. For the ECBI problem scale, correlations of .67 and .48 were calculated for the CBCL externalizing and internalizing scales, respectively. The ECBI intensity scale yielded correlations of .75 and .41 for the externalizing and internalizing scales, respectively (Boggs et al., 1990).

Criterion validity was also established when the authors of the CBCL compared children not referred for mental health services to referred children on measures of both the CBCL, using parent reported data, and a companion measure of behavior problems, the Teacher’s Report Form (TRF), using teacher-reported data (Ang et al., 2012). The clinically referred children had significantly higher behavior problem scores on the CBCL, as predicted.

The internal consistencies of the CBCL have generally been found to be very high. Utendale and Hastings (2011) examined the CBCL and the C-TRF in a sample of 115 normally developing children, their mothers, and their preschool teachers. Alpha coefficients were calculated at two time points for the CBCL, yielding .92 and .91, respectively, and at one time point for the C-TRF, yielding .95 at time one. Alpha coefficients for the CBCL and TRF in the Ang et al. (2012) study were .96 for total behavior problems, .89 for internalizing problems, and
.91 for externalizing problems. Murray et al. (2014) reported on a combination of the CBCL, using the maternal report, along with the youth-self-report (YSR) version of the CBCL, with a focus on aggressive behavior, comparing both eighth and ninth grades in a sample of 224 students and their parents. Maternal reports yielded alpha coefficients of .85 for grade 8 and .86 for grade 9. The YSR yielded alpha coefficients of .82 for grade 8 and .77 for grade 9.

**Child Externalizing Behavior Problems**

The CBCL includes six subscales that make up child behavior problems: aggression, attention, social problems, withdrawn behavior, anxious/depressed behavior, and delinquent or rule-breaking behavior. This study examines the effects of couples' relationship quality on child externalizing behavior problems; therefore, only the aggression and rule-breaking subscales are used. The CBCL EB subscale varies from the preschool version to the school-age version due to considerations for child development (Achenbach & Rescorla, 2000; Bendheim-Thoman Center for Research on Child Wellbeing [BTCRCW], 2018; Reichman et al., 2001). EB data from waves four and five are used for this dissertation, which is comprised of the following subscales: aggression (ages 5 and 9) and rule-breaking (age 9). A description of the coding for each of the variables in the analyses is found in Appendix A: Description of Variables.

Research participants were asked to rate each statement on a Likert scale from 0 – not true, 1 – sometimes or somewhat true, or 2 – very true or often true. These items were taken directly verbatim from the FFCWS scales documentation navigator (Reichman et al., 2001; BTCRCW, 2018). The five-year aggression subsection includes: argues a lot; brags or boasts; cruel, bullying, or mean to others; demands a lot of attention; child destroys his/her own things; destroys things belong to family or others; disobedient at home; disobedient at school; easily jealous; gets in many fights; physically attacks people; screams a lot; showing off/clowning;
stubborn/sullen/irritable; has sudden changes in mood or feelings; talks too much; teases a lot; has temper tantrums or hot temper; threatens people; and unusually loud (Achenbach, 1992; BTCRCW, 2018). The year-nine aggression subsection includes 18-items: argues a lot; brags or boasts; cruel, bullying, or mean to others; demands a lot of attention; child destroys his/her own things; destroys things belong to family or others; disobedient at home; disobedient at school; easily jealous; gets in many fights; physically attacks people; screams a lot; stubborn/sullen/irritable; has sudden changes in mood or feelings; teases a lot; has temper tantrums or hot temper; threatens people; and unusually loud (Achenbach, 1992). The obtained alpha coefficient for the aggression subsection was .84 at year-five and .89 at year-nine (BTCRCW, 2018). The year-nine rule-breaking subsection included the following seventeen items: child drinks alcohol without parents’ permission; child doesn’t seem to feel guilty after misbehaving; child breaks rules at home; child lies or cheats; child prefers being with older children; child runs away from home; child sets fires; child has sexual problems; child steals at home; child steals outside of the home; child swears or uses obscene language; child thinks too much about sex; child smokes, chews, or sniffs tobacco; child is truant, skips school; child hangs around with others who get in trouble; child uses alcohol or drugs for non-medical purposes; and child vandalizes. The rule-breaking subsection yielded an alpha coefficient of .77 at year-nine (BTCRCW, 2018).

**Independent Variables**

**Couples’ Relationship Quality**

The FFCWS developed a unique instrument to measure couples’ relationship quality by combining modified questions taken from multiple pre-existing measures of couples’ relationship quality and adding in new questions that related to couples’ relationship quality.
Questions were taken and modified from the Stanley and Markman Commitment Inventory (Stanley & Markman, 1992), the Oklahoma Marriage Initiative Statewide Baseline Survey (Johnson et al., 2002), the National Survey of Families and Households (NSFH) (Sweet & Bumpass, 1996), and the Marital Instability Index (Booth et al., 1983) to become the Couple Relationship Quality Scale (CRQ-S, 20) for the FFCWS. The full CRQ-S can be found in Appendix B. Five items related to violence have been removed from this scale, as domestic violence is not the subject of this research project.

The CRQ-S is divided into three sections. The first section of the scale includes positive relationship qualities related to couples’ trust and support, while the second section assesses the degree to which couples may or may not want to end their romantic relationships. The final section of the scale measures both positive and negative qualities, and it is the most reflective of the specific concepts this dissertation seeks to measure quantitatively: couples’ trust/support, positive communication/affection, coercion, and relationship instability.

This study created three new constructs: affection/support, coercion, and relationship instability. These constructs were created in order to capture the essence of couples’ relationship quality in a way that quantitative methodology has not measured in the majority of previous research. This study expands on current research by examining all new constructs of affection/support, relationship instability, and coercion. The questions from the FFCWS Couples’ Relationship Quality (CRQ) questionnaires were used to develop each of the three constructs. The CRQ included seven items related to affection/support, seven items related to coercion, and four items related to relationship instability. These statements were posed to mothers and fathers at year-five and year-nine interviews. Researchers asked respondents to rate each statement on either a 3-point or 5-point Likert scale of 1 – never, 2 – sometimes, or 3 –
often or 1 – strongly disagree, 2 – disagree, 3 – neither agree nor disagree, 4 – agree, and 5 – strongly agree.

**Couple Affection/Support**

This study used four statements to measure couples’ affection and support. Researchers asked respondents to listen to each statement and to rate their relationships on a 3-point Likert scale of 1 – never, 2 – sometimes, or 3 – often. The quality of affection or support that the mother/father reported that she/he experienced within the couple’s relationship were related to affection, fidelity, and positive communication. The following statements were taken verbatim from the FFCW data questionnaires (Booth et al., 1983; Johnson et al., 2002; Stanley & Markman, 1992; Sweet & Bumpass, 1996):

1. She/He expresses affection or love for you.
2. She/He encourages or helps you to do things that are important to you.
3. She/He listens to you when you need someone to talk to.
4. She/He really understands your hurts and joys.

**Couple Coercion**

Six statements were used to measure couple coercion. Researchers asked respondents to listen to each statement and to rate their relationships on a 3-point Likert scale of 1 – never, 2 – sometimes, or 3 – often. The following statements were taken verbatim from the FFCW data questionnaires (Booth et al., 1983; Johnson et al., 2002; Stanley & Markman, 1992; Sweet & Bumpass, 1996):

1. She/He insults or criticizes you or your ideas.
2. She/He tries to keep you from seeing or talking with your friends or family.
3. She/He tries to prevent you from going to work or school.
4. She/He withholds money, makes you ask for money, or takes your money.

5. She/He withholds sex to try to control your behavior.

6. She/He insults or criticizes you for not taking good enough care of the child or your home.

**Relationship Instability**

The following is a list of statements that measure the instability of the couple’s relationship. Researchers asked respondents to listen to each statement and to rate their relationships on a 3-point Likert scale of 1 – never, 2 – sometimes, or 3 – often. The following questions were taken verbatim from the FFCW data questionnaires (Booth et al., 1983; Johnson et al., 2002; Stanley & Markman, 1992; Sweet & Bumpass, 1996):

1. How often have you thought your relationship with (MOTHER/FATHER) might be in trouble?

2. How often have you and (MOTHER/FATHER) discussed ending your relationship?

**Marital Status**

Empirical literature has linked marital status with child behavior problems (Bachman et al., 2009; Berger & McLanahan, 2015). Married or cohabiting biological parents were the focus of this variable as parents or other caregivers outside of the home may introduce spurious or extraneous variables to child behavior problems. Because the focus for this study is to examine the relationship quality between married couples who live together and biological cohabiting parents who live together, marital status is the construct for this variable. It is expected that married couples would have children with fewer behavior problems.

Marital status is assessed initially as a baseline measure and again at each wave of interviews. Mothers and fathers were asked identical questions though interviewed separately.
Two questions related to marital status came from the mothers’ baseline and year-five interviews and were taken verbatim from the FFCWS. Baseline interview marital status was operationalized as: Are you currently married to the father of your new baby? Each participant was asked to answer each statement by using a nominal response of 1 – yes, married to the father, 2 – no, not married to the father, or 3 – father unknown (Reichman et al., 2001). The second question was asked to all research participants that were romantically involved with one another, married or not married, and captured whether or not participants were living with one another: Are you and baby’s mother/father living together now? Participants were then asked to answer this statement using 1 – yes or 2 – no. All subjects in the present study were cohabiting whether they were married or not.

The data within the FFCWS indicated that there were 1,076 marriages between fathers and the mothers of their children during wave one of the study and 1,718 marriages to the mothers of the same focal child during wave four (Office of Population Research [OPR], 2019). This indicates that there was an increase of 642 biological parents that were married after wave-one. Data also indicated that fewer than 200 couples reported divorcing between waves one and four (OPR, 2019).

**Demographic Variables**

The demographic variables chosen for this study were included due to their importance both for family systems theory and in recent research related to couples’ relationship quality and child behavior problems (Goldberg & Carlson, 2014; Kerr & Bowen, 1988; Ratcliff et al., 2016). The following variables were measured from the baseline interview and include socioeconomic status as measured by reported yearly income, maternal age at birth of focal child, maternal education, maternal religious non-attendance, paternal age at birth of focal child, paternal
education, race, paternal religious non-attendance, and child gender. Bivariate relationships between potential control variables are examined and variables are chosen for analysis based upon the degree to which they correlate with the dependent variables. It is expected that as income, age of parents, education, and religious attendance increase that child behavior problems would decrease. Additionally, this study would expect that boys would have a higher rate of externalizing behavior problems than girls. There is no expected outcome for the race variables.

Each demographic variable was measured at wave one. This study used the same operationalization as the FFCWS for all variables except age and child gender. The FFCWS categorized income using an ascending interval scale to operationalize the variable as: 1 – less than $5,000; 2 – $5,000 to $9,999; 3 – $10,000 to $14,999; 4 – $15,000 to $19,999; 5 – $20,000 to $24,999; 6 – $25,000 to $34,999; 7 – $35,000 to $49,999; 8 – $50,000 to $74,999; 9 – $75,000 and above. The FFCWS categorized education using an interval scale and operationalized education as 0 – less than high school; 1 – high school diploma; 2 – some college or technical school; 3 – college or graduate school. Raw data were available for the age of the biological parents at wave one. These data were categorized into separate ascending interval scales by this study for mothers and fathers: 1 – 15-19 years; 2 – 20-29 years; 3 – 30-39 years; 4 – 40 and over in order to be used in the regression analyses. Religious non-attendance was measured using a Likert scale developed by the FFCWS. The survey asked mothers and fathers: About how often do you attend religious services? 1 – Once a week or more; 2 – Several times a month; 3 – Several times a year; 4 – Hardly ever; 5 – Not at all. Child gender was operationalized into a dichotomous variable 0 – boys and 1 – girls. Finally, race was measured dichotomously in the same way for both mothers and fathers. 1 – Hispanic and 0 – all other races; 1 – Caucasian and 0
– all other races; 1 – African American and 0 – all other races; 1 – Asian and 0 – all other races; 1 – American Indian and 0 – all other races.

**Maternal Depression**

In the FFCWS, maternal depression was measured using two methods. If respondents reported that they were currently taking antidepressants for depression, they were marked as depressed and surveys were not utilized. Otherwise, respondents were given depression surveys by Kessler et al. (1998) and Walters et al. (2002) that measured depression regardless of disorder (i.e., major depression and bipolar disorder). Thus, respondents were classified as depressed if they scored beyond a cutoff point on the depression inventory or were taking depression medication. Dichotomous variables were then created from the data by the FFCWS, 1 – depressed or 0 – not depressed. It is expected that as mothers are less depressed children will have fewer behavior problems. All variables and descriptive statistics are summarized in Table 3.1.

**Data Analysis**

Twelve multiple regression analyses are used to examine couples’ relationship quality and child externalizing behavior problems. The first six regressions examine the mother’s perceptions of her relationship with the father, and the last six regressions examine the father’s perceptions of his relationship with the mother. All twelve regressions are interested in how mothers’ and fathers’ perceptions of their relationships affect their child’s behavior.
Table 3.1. Descriptive Statistics (N’s are based on all inclusion criteria)

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Min</th>
<th>Max</th>
</tr>
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<td><strong>Independent Variables</strong></td>
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<td></td>
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<td>1.668</td>
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<tr>
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<td>0.298</td>
<td>0.457</td>
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</tbody>
</table>
Each individual regression utilizes the following control variables: baseline measure of child
gender, baseline measure of maternal/paternal age, baseline measure of maternal/paternal race,
baseline measure of maternal/paternal income, baseline measure of maternal/paternal religious
non-attendance, baseline measure of maternal/paternal education, and the year-five rating of
maternal depression. Maternal depression was not measured at baseline in the FFCWS; therefore,
it was used in the model at year-five. The variable relationship status is a dichotomous variable
with 1 – cohabiting and 2 – married and living together. Relationship status was measured at
baseline and again at year-five. However, the same research participants were not followed over
time; therefore, the research participants in the first baseline relationship status variable may not
be the same in the second year-five relationship status variable. The baseline variable
relationship status is used as a control variable in the first three regressions for mothers and
fathers, and the year-five variable relationship status is used as a control variable in the last three
regressions for mothers and fathers. The three independent variables measured in year-five are
indices of couples’ relationship qualities, affection/support, coercion, and relationship instability
and are used in all twelve regressions. Finally, there are three dependent variables: aggression
measured in year-five, aggression measured in year-nine, and rule-breaking behavior measured
in year-nine.

**Heteroskedasticity and Multicollinearity**

I conducted multicollinearity diagnostics (i.e., variance inflation factors) following the
estimation of each model, but in no instance did I find that collinearity was an issue in need of
correction. On the other hand, diagnostic tests revealed that model standard errors were affected
by heteroskedasticity, so I re-estimated each model using heteroskedastic robust standard errors.
Summary

Family systems theory and Belsky’s determinants of parenting model along with empirical literature that have examined couples’ relationship qualities on child outcomes provide the foundation for this study. There is very little statistically powerful, valid, and reliable research in the current literature related to the positive aspects of couples’ relationship qualities and their impact on child behavior problems. More specifically, research is just beginning to examine specific positive qualities within couples’ romantic relationships that may influence children’s behavior. The purpose of this study is to examine what positive or negative qualities within couples’ relationships are associated with EB problems in children. Thus, this research will conceptualize and construct measures of both positive and negative aspects of relationship quality that will further refine our knowledge concerning couples’ relationships and their children’s behavior.
CHAPTER 4. RESULTS

This chapter begins with a presentation of alpha reliability coefficients, factor analyses, and analysis of variance models that lay the groundwork for the twelve multiple regression models reported later in this chapter. Analysis of variance models reporting the means of race and the dependent variables are discussed. In cases in which a given regression coefficient is subject to a directional hypothesis and when the coefficient is in the expected direction, a one-tailed test of statistical significance is used. For coefficients not subject to a directional hypothesis, or for coefficients that are in a direction opposite of expectations, a two-tailed test of statistical significance is used.

a) It is hypothesized that affection/support in couples’ relationships will be inversely associated with their children’s behavior problems.

b) It is hypothesized that coercion in couples’ relationships will be positively associated with their children’s behavior problems.

c) It is hypothesized that instability in couples’ relationships will be positively associated with their children’s behavior problems.

Alpha Reliability Coefficients and Factor Analyses

Alpha reliability coefficients were calculated for each independent variable (IV) and dependent variable (DV) and are displayed in Table 4.1. Factor analyses were then calculated as an additional step to ensure the construct validity of each variable. Although the coercion IV fell just short of the ideal .70, the coercion variable was retained in analyses because of its theoretical significance.
Table 4.1. Alpha Reliability Coefficients

<table>
<thead>
<tr>
<th>Factor</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal Affection/Support</td>
<td>0.78</td>
</tr>
<tr>
<td>Paternal Affection/Support</td>
<td>0.75</td>
</tr>
<tr>
<td>Maternal Coercion</td>
<td>0.67</td>
</tr>
<tr>
<td>Paternal Coercion</td>
<td>0.69</td>
</tr>
<tr>
<td>Maternal Relationship Instability</td>
<td>0.79</td>
</tr>
<tr>
<td>Paternal Relationship Instability</td>
<td>0.76</td>
</tr>
<tr>
<td>Aggression Y5</td>
<td>0.84</td>
</tr>
<tr>
<td>Aggression Y9</td>
<td>0.89</td>
</tr>
<tr>
<td>Rule-Breaking Y9</td>
<td>0.77</td>
</tr>
</tbody>
</table>

Effects of Mother and Father Race on Dependent Variables

Table 4.2 reports the results from an analysis of variance (ANOVA) testing the null hypothesis that the means for each of the dependent variables are equal across the four main racial groups – blacks, Hispanics, whites, and all other races. The dependent variables tested in ANOVAs presented in Table 4.2 were aggression in both years-five and -nine and rule-breaking behavior in year-nine. For mothers, we can reject the null hypothesis that the means of each race are equal across the aggression DV in year-five variable as the F-statistic (3.56) is significant at the p > .01 level for year-five and the F-statistic (4.51) is significant at the p > .001 level at year-nine. For mothers’ racial groups, there is a moderate difference in the means for aggression in years-five and -nine. Yet, rule-breaking behavior shows a substantial difference from aggression in both years five and nine with an F-statistic of 9.77 and a p-value > .001. In other words, though there is a modest change between the means in the racial groups from aggression in year-five to aggression in year-nine, there is a much greater difference in the means in the racial differences in mothers with children who are rule breakers than those with aggressive behaviors.

For fathers, we can also say that we can reject the null hypothesis that the means of each race are equal across the dependent variables. For aggression in year-five the F-statistic (8.28) and p-value (p > .001) is considerably higher than in year-nine (3.03) (p > .05). This means that
the means for the racial differences in fathers are greater for aggression in year-five than in year-nine. Similarly, the means for the racial differences in fathers are even greater for child rule-breaking behavior as the F-statistic (13.54) and p-value (p > .001) are even stronger than for aggression in year-five.

Table 4.2. Analysis of Variance Results for Effects of Race on Mother and Father Dependent Variables

<table>
<thead>
<tr>
<th></th>
<th>Mothers</th>
<th>Mean Scores</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Aggression Y5</td>
<td>Aggression Y9</td>
<td>Rule-Breaking Y9</td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>11.068</td>
<td>3.844</td>
<td>1.577</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>10.336</td>
<td>4.681</td>
<td>1.603</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>11.246</td>
<td>4.540</td>
<td>2.039</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>11.119</td>
<td>4.782</td>
<td>2.011</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-statistic</td>
<td>3.56**</td>
<td>4.71***</td>
<td>9.77***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>2,672</td>
<td>3,145</td>
<td>3,191</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*prob < .05, **prob < .01, ***prob < .001

<table>
<thead>
<tr>
<th></th>
<th>Father</th>
<th>Mean Scores</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Aggression Y5</td>
<td>Aggression Y9</td>
<td>Rule-Breaking Y9</td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>11.141</td>
<td>3.955</td>
<td>1.513</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>9.907</td>
<td>4.424</td>
<td>1.524</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>11.352</td>
<td>4.574</td>
<td>2.064</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>10.835</td>
<td>4.572</td>
<td>1.973</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-statistic</td>
<td>8.28***</td>
<td>3.03*</td>
<td>13.54***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>2,646</td>
<td>3,114</td>
<td>3,160</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*prob < .05, **prob < .01, ***prob < .001
Effects of Couples’ Relationship Quality on Child Behavior Problems:
Multiple Regression Analyses

As previously noted, it has been posited that the quality of couples’ relationships has an
effect on child behavior (Belsky, 1984; Kerr & Bowen, 1988). I hypothesize that the positive
qualities shared between mothers and fathers (such as affection and support) are negatively
related to child aggression or rule-breaking behavior, while the negative aspects (such as
coercion or relationship instability) are positively related to child aggression or rule-breaking
behavior.

Maternal Regression Analyses
Mothers’ Perceptions of Relationship Quality on Child Aggression in Year-Five

In Tables 4.3 and 4.4 I present OLS regression estimates for the models of child
aggression in year-five. In the model presented in Table 4.3 the variable marital status represents
the maternal reports of whether mothers and fathers were married or cohabiting during year-five.
In this case it is important to note that the model for Table 4.4 includes the variable marital status
which represents the maternal reports of whether mothers and fathers were married or cohabiting
during the baseline year. In both tables, there is considerable support for the hypothesis that
maternal perceptions of affection and support are associated with a decrease in child aggression
in year-five. The model in Table 4.3 indicates that the coefficient for maternal affection and
support is both negative and statistically significant (b = -0.378, t = -2.47), indicating that
mothers who perceive strong levels of affection and support in their relationships with their
child’s father are more likely to have children who exhibit lower levels of aggression than those
mothers who do not perceive strong affection and support. The variable affection/support has a
range from 0 to 8; as one moves from the lowest level of maternal perception of this variable to
the highest, one would expect a decrease in child aggression of 3.024 (i.e., 8 * -0.378),
controlling for the other independent variables. Child aggression in year-five is a 32-point scale with a range from 0 to 31. Therefore, the effect of maternal perceptions of affection and support represents approximately 10% of the range of this dependent variable.

Table 4.3. Mothers’ Perceptions of Relationship Quality on Child Aggression in Year-Five

<table>
<thead>
<tr>
<th></th>
<th>DV Child Aggression</th>
<th>Year-Five</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal Relationship Instability (Y5)</td>
<td>-0.265</td>
<td>-1.07</td>
</tr>
<tr>
<td>Maternal Affection/Support (Y5)</td>
<td>-0.378</td>
<td>-2.47**</td>
</tr>
<tr>
<td>Maternal Coercion (Y5)</td>
<td>0.254</td>
<td>1.30</td>
</tr>
<tr>
<td>Marital Status (B)</td>
<td>-0.091</td>
<td>-0.21</td>
</tr>
<tr>
<td>Maternal Income (B)</td>
<td>-0.139</td>
<td>-1.40</td>
</tr>
<tr>
<td>Maternal Religious Non-Attendance (B)</td>
<td>0.226</td>
<td>1.59</td>
</tr>
<tr>
<td>Maternal Hispanic (B)</td>
<td>1.824</td>
<td>1.73</td>
</tr>
<tr>
<td>Maternal Caucasian (B)</td>
<td>2.107</td>
<td>1.94</td>
</tr>
<tr>
<td>Maternal African American (B)</td>
<td>2.004</td>
<td>1.85</td>
</tr>
<tr>
<td>Maternal Asian (B)</td>
<td>3.142</td>
<td>2.53**</td>
</tr>
<tr>
<td>Maternal American Indian (B)</td>
<td>0.154</td>
<td>0.12</td>
</tr>
<tr>
<td>Maternal Age (B)</td>
<td>0.091</td>
<td>0.31</td>
</tr>
<tr>
<td>Maternal Education (B)</td>
<td>-0.517</td>
<td>-2.30*</td>
</tr>
<tr>
<td>Maternal Depression (Y5)</td>
<td>1.478</td>
<td>2.39**</td>
</tr>
<tr>
<td>Child Gender (B)</td>
<td>-0.016</td>
<td>-0.05</td>
</tr>
</tbody>
</table>

N=816
R-squared = 0.0979
F (15, 800) = 4.58
Prob > F = 0.000
*prob < .05, ** prob < .01, ***prob < .001.

Conversely, no support is found for the hypotheses related to maternal perceptions of relationship instability and coercion. Relationship instability yields a coefficient that was both nonsignificant and in the unexpected (negative) direction \( (b = -0.265, t = -1.07) \), thus there is no discernible effect on child aggression in year-five. Maternal perceptions of coercion are also not statistically significant. Thus, both models presented in Tables 4.3 and 4.4 indicate that the mother’s perception of these two attributes do not affect child aggression in year-five.
Table 4.4. Mothers’ Perceptions of Relationship Quality on Child Aggression in Year-Five

<table>
<thead>
<tr>
<th>Variable</th>
<th>b</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal Relationship Instability (Y5)</td>
<td>-0.355</td>
<td>-1.54</td>
</tr>
<tr>
<td>Maternal Affection/Support (Y5)</td>
<td>-0.360</td>
<td>-2.48**</td>
</tr>
<tr>
<td>Maternal Coercion (Y5)</td>
<td>0.231</td>
<td>1.40</td>
</tr>
<tr>
<td>Marital Status (Y5)</td>
<td>-0.281</td>
<td>-0.62</td>
</tr>
<tr>
<td>Maternal Income (B)</td>
<td>-0.198</td>
<td>-2.13*</td>
</tr>
<tr>
<td>Maternal Religious Non-Attendance (B)</td>
<td>0.095</td>
<td>0.68</td>
</tr>
<tr>
<td>Maternal Hispanic (B)</td>
<td>0.752</td>
<td>0.57</td>
</tr>
<tr>
<td>Maternal Caucasian (B)</td>
<td>1.300</td>
<td>0.96</td>
</tr>
<tr>
<td>Maternal African American (B)</td>
<td>0.934</td>
<td>0.69</td>
</tr>
<tr>
<td>Maternal Asian (B)</td>
<td>2.606</td>
<td>1.81</td>
</tr>
<tr>
<td>Maternal American Indian (B)</td>
<td>0.080</td>
<td>0.06</td>
</tr>
<tr>
<td>Maternal Age (B)</td>
<td>0.087</td>
<td>0.31</td>
</tr>
<tr>
<td>Maternal Education (B)</td>
<td>-0.774</td>
<td>-3.60***</td>
</tr>
<tr>
<td>Maternal Depression (Y5)</td>
<td>1.399</td>
<td>2.30**</td>
</tr>
<tr>
<td>Child Gender (B)</td>
<td>-0.499</td>
<td>-0.15</td>
</tr>
</tbody>
</table>

N=907
R-squared = 0.1107
F (15, 892) = 5.89
Prob > F = 0.000
*prob < .05, ** prob < .01, ***prob <.001
B = Baseline Measure   Y5 = Year Five Measure

Several control variables were significantly associated with aggression at year-five. Table 4.3 displays the coefficient for maternal education (b = -0.517, t = -2.30) which is in the negative direction and is significantly associated with aggression in year-five. This means that mothers with higher levels of education are less likely to have five-year-old children who exhibit aggressive behavior. Education is measured on a four-point scale ranging from 0 to 3, so as one moves from the lowest to highest levels of maternal education there is a difference in child aggression of 1.551. While statistically significant, this is a minor effect. Alternatively, maternal depression has the effect of increasing child behavioral aggression; the effect of this variable is both positive and statistically significant (b = 1.478, t = 2.39), indicating that children with mothers who suffer from depression are more likely to engage in aggressive behavior than
children whose mothers do not suffer from depression. For the remaining control variables, there are only modest effects. The coefficients for marital status, maternal income, maternal age, and child gender are all non-significant. Among the race variables only the coefficient for the maternal Asian variable is statistically significant ($b = 3.142$, $t = 2.53$), indicating that children with Asian mothers have significantly higher levels of aggressive behavior than all other races.

**Mothers’ Perceptions of Relationship Quality on Child Aggression in Year-Nine**

Tables 4.5 and 4.6 present the OLS regression estimates for the models of child aggression in year-nine. In Table 4.5, the variables include the maternal perceptions of the mother-father relationship measured during the baseline year. Just as the first two models demonstrate, the results in Tables 4.5 and 4.6 also support the hypothesis that maternal affection and support depresses child aggression. This time at year-nine the coefficient for maternal affection in Table 4.5 ($b = -0.350$, $t = -2.54$) is both negative and statistically significant. This indicates that children whose mothers perceive strong affection and support in their romantic relationship with their child’s father are significantly less likely to exhibit aggressive behavior than children whose mothers do not perceive strong affection and support. I hypothesized that as couples reported an increase of affection and support there would be a decrease in the aggressive behavior in children. Therefore, one would expect the coefficient in the model to be negative, controlling for the effects of other independent variables. Indeed, the coefficient indicates that there is a negative effect of maternal affection and support ($b = -0.350$), which has a range from 0 to 8. Thus, for every one-unit decrease along the (0 to 8) range in the maternal affection and support perception variable, there is a -0.350 decrease in child aggression. Across the range of this variable, the overall effect on child aggression is -2.80 (i.e., $8 \times -0.350$).
Conversely, no support is found for my hypotheses related to maternal perceptions of relationship instability and coercion. The coefficient for relationship instability in Table 4.5 (b = -0.161, t = -0.76) is in the expected negative direction but is not statistically significant. This indicates that this variable does not have a marked effect on childhood aggression in year-nine. Additionally, the coefficient for maternal perceptions of coercion is not statistically significant. Thus, maternal reports of relationship instability and coercion do not affect child behavioral aggression.

In terms of control variables, this model indicates that maternal income (b = -0.193, t = -2.21) depresses childhood aggression. Income is a 9-point scale ranging from 1 to 9, so as a mother moves from the lowest income bracket to the highest there is a difference in childhood

Table 4.5. Mothers’ Perceptions of Relationship Quality on Child Aggression in Year-Nine

<table>
<thead>
<tr>
<th></th>
<th>DV Child Aggression</th>
<th>Year-Nine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal Relationship Instability (Y5)</td>
<td>-0.161</td>
<td>-0.76</td>
</tr>
<tr>
<td>Maternal Affection/Support (Y5)</td>
<td>-0.350</td>
<td>-2.54**</td>
</tr>
<tr>
<td>Maternal Coercion (Y5)</td>
<td>0.084</td>
<td>0.45</td>
</tr>
<tr>
<td>Marital Status (B)</td>
<td>0.198</td>
<td>0.52</td>
</tr>
<tr>
<td>Maternal Income (B)</td>
<td>-0.193</td>
<td>-2.21*</td>
</tr>
<tr>
<td>Maternal Religious Non-Attendance (B)</td>
<td>0.311</td>
<td>2.51**</td>
</tr>
<tr>
<td>Maternal Hispanic (B)</td>
<td>-0.101</td>
<td>-0.09</td>
</tr>
<tr>
<td>Maternal Caucasian (B)</td>
<td>1.350</td>
<td>1.21</td>
</tr>
<tr>
<td>Maternal African American (B)</td>
<td>-0.096</td>
<td>-0.09</td>
</tr>
<tr>
<td>Maternal Asian (B)</td>
<td>0.996</td>
<td>0.79</td>
</tr>
<tr>
<td>Maternal American Indian (B)</td>
<td>0.537</td>
<td>0.53</td>
</tr>
<tr>
<td>Maternal Age (B)</td>
<td>0.043</td>
<td>-0.17</td>
</tr>
<tr>
<td>Maternal Education (B)</td>
<td>-0.165</td>
<td>-0.71</td>
</tr>
<tr>
<td>Maternal Depression (Y5)</td>
<td>0.981</td>
<td>1.69*</td>
</tr>
<tr>
<td>Child Gender (B)</td>
<td>-0.625</td>
<td>-1.94*</td>
</tr>
</tbody>
</table>

N=807  
R-squared = 0.0808  
F (15, 791) = 3.93  
Prob > F = 0.000  
*prob < .05, ** prob < .01, ***prob <.001.

B = Baseline Measure Y5 = Year Five Measure
aggression of -1.54; while this is not a huge effect, maternal income does appear to modestly decrease childhood aggression. Religious non-attendance is a 5-point scale indicating less religious attendance as the scale increases (1 to 5). As mothers report a decrease in religious attendance (b = 0.311, t = 2.51) they are more likely to report children who exhibit higher levels of aggression than mothers who report attending religious services more regularly. Additionally, both models from Tables 4.5 and 4.6 indicate that nine-year-old boys exhibit more aggressive behavior than nine-year-old girls as reported by their mothers.

Table 4.6. Mothers’ Perceptions of Relationship Quality on Child Aggression in Year-Nine

<table>
<thead>
<tr>
<th></th>
<th>DV Child Aggression</th>
<th></th>
<th>Year-Nine</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b</td>
<td>t</td>
<td>b</td>
<td>t</td>
</tr>
<tr>
<td>Maternal Relationship Instability (Y5)</td>
<td>-0.051</td>
<td>-0.26</td>
<td>-0.051</td>
<td>-0.26</td>
</tr>
<tr>
<td>Maternal Affection/Support (Y5)</td>
<td>-0.344</td>
<td>-2.78*</td>
<td>-0.344</td>
<td>-2.78*</td>
</tr>
<tr>
<td>Maternal Coercion (Y5)</td>
<td>0.206</td>
<td>1.14</td>
<td>0.206</td>
<td>1.14</td>
</tr>
<tr>
<td>Marital Status (Y5)</td>
<td>0.094</td>
<td>0.23</td>
<td>0.094</td>
<td>0.23</td>
</tr>
<tr>
<td>Maternal Income (B)</td>
<td>-0.177</td>
<td>-2.20*</td>
<td>-0.177</td>
<td>-2.20*</td>
</tr>
<tr>
<td>Maternal Religious Non-Attendance (B)</td>
<td>0.186</td>
<td>1.51</td>
<td>0.186</td>
<td>1.51</td>
</tr>
<tr>
<td>Maternal Hispanic (B)</td>
<td>-0.172</td>
<td>-0.19</td>
<td>-0.172</td>
<td>-0.19</td>
</tr>
<tr>
<td>Maternal Caucasian (B)</td>
<td>1.481</td>
<td>1.60</td>
<td>1.481</td>
<td>1.60</td>
</tr>
<tr>
<td>Maternal African American (B)</td>
<td>0.096</td>
<td>0.11</td>
<td>0.096</td>
<td>0.11</td>
</tr>
<tr>
<td>Maternal Asian (B)</td>
<td>1.087</td>
<td>0.99</td>
<td>1.087</td>
<td>0.99</td>
</tr>
<tr>
<td>Maternal American Indian (B)</td>
<td>0.478</td>
<td>0.48</td>
<td>0.478</td>
<td>0.48</td>
</tr>
<tr>
<td>Maternal Age (B)</td>
<td>-0.082</td>
<td>-0.34</td>
<td>-0.082</td>
<td>-0.34</td>
</tr>
<tr>
<td>Maternal Education (B)</td>
<td>-0.301</td>
<td>-1.45</td>
<td>-0.301</td>
<td>-1.45</td>
</tr>
<tr>
<td>Maternal Depression (Y5)</td>
<td>1.124</td>
<td>1.84*</td>
<td>1.124</td>
<td>1.84*</td>
</tr>
<tr>
<td>Child Gender (B)</td>
<td>-0.835</td>
<td>-2.71***</td>
<td>-0.835</td>
<td>-2.71***</td>
</tr>
</tbody>
</table>

N=893
R-squared = 0.0884
F (15, 877) = 4.20
Prob > F = 0.000
*prob < .05, ** prob < .01, ***prob <.001
B= Baseline Measure   Y5 = Year Five Measure
Mothers’ Perceptions of Relationship Quality on Child Rule-Breaking Behavior Year-Nine

I present the OLS regression estimates for my model of child rule-breaking behavior in year-nine in Table 4.7. In this model the variables include the maternal perceptions of the mother-father relationship measured during the baseline year. The results presented in Table 4.7 and Table 4.8 support the hypothesis that maternal affection and support depresses child rule-breaking behavior. The coefficient for the model presented in Table 4.7 (b = -0.150, t = -2.78) is both negative and statistically significant. This indicates that children whose mothers perceive strong affection and support in their romantic relationship with their child’s father are significantly less likely to exhibit rule-breaking behavior than children whose mothers do not perceive strong affection and support.

Table 4.7. Mothers’ Perceptions of Relationship Quality on Child Rule-Breaking Behavior in Year-Nine

<table>
<thead>
<tr>
<th>DV Rule-Breaking</th>
<th></th>
<th>Year-Nine t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal Relation Instability (Y5)</td>
<td>-0.028</td>
<td>-0.32</td>
</tr>
<tr>
<td>Maternal Affection/Support (Y5)</td>
<td>-0.150</td>
<td>-2.78**</td>
</tr>
<tr>
<td>Maternal Coercion (Y5)</td>
<td>0.058</td>
<td>0.85</td>
</tr>
<tr>
<td>Marital Status (B)</td>
<td>0.117</td>
<td>0.78</td>
</tr>
<tr>
<td>Maternal Income (B)</td>
<td>-0.083</td>
<td>-2.19*</td>
</tr>
<tr>
<td>Maternal Religious Non-Attendance (B)</td>
<td>0.058</td>
<td>1.26</td>
</tr>
<tr>
<td>Maternal Hispanic (B)</td>
<td>0.003</td>
<td>0.01</td>
</tr>
<tr>
<td>Maternal Caucasian (B)</td>
<td>0.051</td>
<td>0.13</td>
</tr>
<tr>
<td>Maternal African American (B)</td>
<td>0.037</td>
<td>0.09</td>
</tr>
<tr>
<td>Maternal Asian (B)</td>
<td>-0.297</td>
<td>-0.73</td>
</tr>
<tr>
<td>Maternal American Indian (B)</td>
<td>-0.229</td>
<td>-0.52</td>
</tr>
<tr>
<td>Maternal Age (B)</td>
<td>-0.010</td>
<td>-0.10</td>
</tr>
<tr>
<td>Maternal Education (B)</td>
<td>-0.112</td>
<td>-1.34</td>
</tr>
<tr>
<td>Maternal Depression (Y5)</td>
<td>-0.030</td>
<td>-0.16</td>
</tr>
<tr>
<td>Child Gender (B)</td>
<td>-0.452</td>
<td>-3.25***</td>
</tr>
</tbody>
</table>

N= 815  
F (15, 799) = 3.73  
R-squared = 0.0595  
Prob > F = 0.000  
*prob < .05, ** prob < .01, ***prob <.001  
B= Baseline Measure     Y5 = Year Five Measure
I hypothesized that as couples reported an increase of affection and support there would be a decrease in the rule-breaking behavior in their children. Therefore, one would expect the coefficient in the model to be negative, controlling for the effects of other independent variables. Indeed, the coefficient indicates that there is a negative direction (-0.150) on the scale of maternal affection support (with a range of 0 to 8). Thus, for every one-unit decrease along the (0 to 8) range in the maternal affection and support perception variable, there is a -1.20 decrease in child rule-breaking behavior.

Conversely, no support is found for my hypotheses related to maternal perceptions of relationship instability and coercion. In Table 4.7, the coefficient for coercion (b = 0.058, t = 0.85) is in the expected positive direction but is not statistically significant. This indicates that this variable does not have a marked effect on childhood aggression in year-nine. Relationship instability is in the opposite and (unexpected) negative direction with a coefficient that is not significant (b = -0.028, t = -0.32). Thus, maternal reports of relationship instability and coercion do not affect child behavioral aggression.

In terms of control variables in Table 4.7, the model indicates that child gender (b = -0.452, t = -3.25) depresses childhood aggression. Child gender is a dichotomous variable coded 1 for girls and 0 for boys. Therefore, an inverse child gender coefficient indicates that girls are reported to demonstrate less aggression than boys. Results presented in Table 4.7 indicate that maternal income is associated with child rule-breaking behavior. In other words, mothers with higher incomes have nine-year-old children with fewer behavior problems.
Table 4.8. Mothers’ Perceptions of Relationship Quality on Child Rule-Breaking Behavior in Year-Nine

<table>
<thead>
<tr>
<th></th>
<th>DV Rule-Breaking b</th>
<th>Year-Nine t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal Relationship Instability (Y5)</td>
<td>0.058</td>
<td>0.67</td>
</tr>
<tr>
<td>Maternal Affection/Support (Y5)</td>
<td>-0.175</td>
<td>-3.27***</td>
</tr>
<tr>
<td>Maternal Coercion (Y5)</td>
<td>0.143</td>
<td>1.42</td>
</tr>
<tr>
<td>Marital Status (Y5)</td>
<td>-0.003</td>
<td>-0.02</td>
</tr>
<tr>
<td>Maternal Income (B)</td>
<td>0.059</td>
<td>1.59</td>
</tr>
<tr>
<td>Maternal Religious Non-Attendance (B)</td>
<td>-0.138</td>
<td>1.00</td>
</tr>
<tr>
<td>Maternal Hispanic (B)</td>
<td>0.091</td>
<td>-0.41</td>
</tr>
<tr>
<td>Maternal Caucasian (B)</td>
<td>0.185</td>
<td>0.27</td>
</tr>
<tr>
<td>Maternal African American (B)</td>
<td>-0.265</td>
<td>0.53</td>
</tr>
<tr>
<td>Maternal Asian (B)</td>
<td>-0.341</td>
<td>-0.74</td>
</tr>
<tr>
<td>Maternal American Indian (B)</td>
<td>-0.025</td>
<td>-0.86</td>
</tr>
<tr>
<td>Maternal Age (B)</td>
<td>-0.164</td>
<td>-0.27</td>
</tr>
<tr>
<td>Maternal Education (B)</td>
<td>-0.002</td>
<td>-1.99*</td>
</tr>
<tr>
<td>Maternal Depression (Y5)</td>
<td>-0.100</td>
<td>-0.44</td>
</tr>
<tr>
<td>Child Gender (B)</td>
<td>-0.557</td>
<td>-3.81***</td>
</tr>
</tbody>
</table>

N=905
R-squared = 0.0767
F (15, 889) = 4.92
Prob > F = 0.000
*prob < .05, ** prob < .01, ***prob <.001.
B=Baseline Measure Y5 = Year Five Measure

Paternal Regression Analyses

In total, six multiple regression analyses were conducted in order to calculate whether fathers’ perceptions of relationship quality were linked to child aggression or rule-breaking behavior. Overall, fathers’ affection/support was significantly associated with aggression at year-five and coercion was associated with child rule-breaking at year-nine. Similar to the maternal relationship assessments, maternal depression and the baseline measure of maternal education were also significant across models estimating relationship quality and aggression.

Fathers’ Perceptions of Relationship Quality on Child Aggression in Year-Five

Tables 4.9 and 4.10 display the OLS regression estimates from the models of paternal perceptions of relationship quality and child aggression in year-five. In the model presented in
Table 4.9, the variable for marital status was measured during the baseline year while the model in Table 4.10 uses a measure of marital status in year-five. The reader can see that both models find considerable support for the hypothesis that paternal perceptions of affection and support decrease child aggression in year-five. In the model presented in Table 4.9, I find that the coefficient for affection/support is in the expected negative direction and is statistically significant \((b = -0.423, t = -2.64)\). The variable affection/support has a range of 0 to 8, therefore a change in affection/support from 0 to 8 indicates a -3.384 change in child aggression (i.e., \(8 \times -0.423\)). For the model presented in Table 4.10, the coefficient also is in the expected negative direction and statistically significant \((b = -0.389, t = -2.44)\) and as there is a change in the affection/support scale from 0 to 8 there would be a decrease in child aggression of -3.112. The child aggression scale is a 32-point scale ranging from 0 to 31. This means that the effect of paternal perception of affection and support on child aggression in year-five represents approximately 10% of the range of the dependent variable.

Alternatively, paternal perceptions of relationship instability and coercion were found to have no effect on aggression in year-five. The model in Table 4.9 indicates that both coefficients for relationship instability \((b = 0.060, t = 0.23)\) and coercion \((0.026, t = 0.21)\) are in the expected positive direction yet are not statistically significant. The coefficients are similar for the model in Table 4.10, in the expected positive direction and also non-significant. Therefore, no support is found for my hypotheses that paternal reports of relationship instability and coercion would increase childhood aggression.

Regarding control variables in the models presented in both Tables 4.9 and 4.10, these indicate that both maternal depression and paternal education depress childhood aggression in year-nine. Strong support is displayed that maternal depression and childhood aggression is in
the expected positive direction in year-nine in both models presented in Table 4.9 (b = 2.331, t = 3.68) and Table 4.10 (b = 2.047, t = 3.15).

Table 4.9. Fathers’ Perceptions of Relationship Quality on Child Aggression in Year-Five

<table>
<thead>
<tr>
<th></th>
<th>DV Child Aggression</th>
<th>Year-Five</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b</td>
<td>t</td>
</tr>
<tr>
<td>Paternal Relationship Instability (Y5)</td>
<td>0.060</td>
<td>0.23</td>
</tr>
<tr>
<td>Paternal Affection/Support (Y5)</td>
<td>-0.423</td>
<td>-2.64**</td>
</tr>
<tr>
<td>Paternal Coercion (Y5)</td>
<td>0.026</td>
<td>0.21</td>
</tr>
<tr>
<td>Marital Status (B)</td>
<td>-0.561</td>
<td>-1.18</td>
</tr>
<tr>
<td>Paternal Income (B)</td>
<td>-0.153</td>
<td>-1.48</td>
</tr>
<tr>
<td>Paternal Religious Non-Attendance (B)</td>
<td>0.209</td>
<td>1.49</td>
</tr>
<tr>
<td>Paternal Hispanic (B)</td>
<td>0.106</td>
<td>0.06</td>
</tr>
<tr>
<td>Paternal Caucasian (B)</td>
<td>-0.029</td>
<td>-0.02</td>
</tr>
<tr>
<td>Paternal African American (B)</td>
<td>-0.094</td>
<td>-0.05</td>
</tr>
<tr>
<td>Paternal Asian (B)</td>
<td>1.588</td>
<td>0.79</td>
</tr>
<tr>
<td>Paternal American Indian (B)</td>
<td>-0.241</td>
<td>-0.20</td>
</tr>
<tr>
<td>Paternal Age (B)</td>
<td>0.002</td>
<td>0.01</td>
</tr>
<tr>
<td>Paternal Education (B)</td>
<td>-0.662</td>
<td>-2.97**</td>
</tr>
<tr>
<td>Maternal Depression (Y5)</td>
<td>2.331</td>
<td>3.68***</td>
</tr>
<tr>
<td>Child Gender (B)</td>
<td>-0.129</td>
<td>-0.36</td>
</tr>
</tbody>
</table>

N=770
R-squared = 0.1021
F (15, 754) = 6.40
Prob > F = 0.000
*prob < .05, ** prob < .01, ***prob <.001
B= Baseline Measure     Y5 = Year Five Measure

In other words, children of mothers who are depressed are more likely to exhibit aggressive behavior in year-nine. Maternal depression is a dichotomous variable, so the difference between no depression and depression is associated with an increase in child aggression by 2.331 (Table 4.9) and 2.047 (Table 4.10).

Paternal education was also found to have strong effects on child aggression in year-nine. The coefficient for paternal education in Table 4.9 is in the negative direction and is statistically significant (b = -0.662, t = -2.97). Paternal education has four items with a range from 0 to 3. Moving from the lowest to the highest point on the education scale is associated with a decrease
in child aggression of -2.65. Therefore, one can say with confidence that fathers with higher levels of education have 9-year-old children with lower rates of aggression.

Table 4.10. Fathers’ Perceptions of Relationship Quality on Child Aggression in Year-Five

<table>
<thead>
<tr>
<th></th>
<th>DV Child Aggression</th>
<th>Year-Five</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paternal Relationship Instability (Y5)</td>
<td>-0.060</td>
<td>-0.22</td>
</tr>
<tr>
<td>Paternal Affection/Support (Y5)</td>
<td>-0.389</td>
<td>-2.44**</td>
</tr>
<tr>
<td>Paternal Coercion (Y5)</td>
<td>0.024</td>
<td>0.20</td>
</tr>
<tr>
<td>Marital Status (Y5)</td>
<td>0.010</td>
<td>0.02</td>
</tr>
<tr>
<td>Paternal Income (B)</td>
<td>-0.111</td>
<td>-1.06</td>
</tr>
<tr>
<td>Paternal Religious Non-Attendance (B)</td>
<td>0.235</td>
<td>1.69</td>
</tr>
<tr>
<td>Paternal Hispanic (B)</td>
<td>-0.923</td>
<td>-0.56</td>
</tr>
<tr>
<td>Paternal Caucasian (B)</td>
<td>-0.923</td>
<td>-0.57</td>
</tr>
<tr>
<td>Paternal African American (B)</td>
<td>-0.769</td>
<td>-0.47</td>
</tr>
<tr>
<td>Paternal Asian (B)</td>
<td>0.736</td>
<td>0.39</td>
</tr>
<tr>
<td>Paternal American Indian (B)</td>
<td>-0.197</td>
<td>-0.16</td>
</tr>
<tr>
<td>Paternal Age (B)</td>
<td>-0.204</td>
<td>-0.79</td>
</tr>
<tr>
<td>Paternal Education (B)</td>
<td>-0.852</td>
<td>3.79***</td>
</tr>
<tr>
<td>Maternal Depression (Y5)</td>
<td>2.047</td>
<td>3.15***</td>
</tr>
<tr>
<td>Child Gender (B)</td>
<td>-0.079</td>
<td>-0.22</td>
</tr>
</tbody>
</table>

N=776
R-squared = 0.0947
F (15, 760) = 5.76
Prob > F = 0.000
*prob < .05, ** prob < .01, ***prob <.001
B= Baseline Measure     Y5 = Year Five Measure

Tables 4.11 and 4.12 display the OLS regression estimates from the models of paternal perceptions of relationship quality and child aggression in year-nine. In Table 4.11 the variable for marital status was measured during the baseline year while Table 4.12 measures marital status in year-five. Contrary to the findings presented in Tables 4.9 and 4.10, the results of model testing presented in Tables 4.11 and 4.12 do not support any of the hypotheses asserted by this study that paternal perceptions of affection and support depress childhood aggression or that perceptions of relationship instability and coercion increase childhood aggression. Both
affection/support and coercion are in the expected negative and positive directions, respectively. However, none of the coefficients are statistically significant.

Regarding control variables for results presented in Tables 4.11 and 4.12, the results for maternal depression, similar to the results for maternal depression in Tables 4.9 and 4.10, are also strongly associated with child aggression in year-nine. This indicates that as mothers report higher levels of depression in wave four, fathers report nine-year-old children with higher rates of aggression in wave five. Additionally, both models presented in Tables 4.11 and 4.12 indicate that older and more educated fathers report children with less aggression than younger and less educated fathers.

Table 4.11. Fathers’ Perceptions of Relationship Quality on Child Aggression in Year-Nine

<table>
<thead>
<tr>
<th>DV Child Aggression</th>
<th>Year-Nine</th>
<th>b</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paternal Relationship Instability (Y5)</td>
<td>-0.215</td>
<td>-0.75</td>
<td></td>
</tr>
<tr>
<td>Paternal Affection/Support (Y5)</td>
<td>-0.000</td>
<td>-0.00</td>
<td></td>
</tr>
<tr>
<td>Paternal Coercion (Y5)</td>
<td>0.141</td>
<td>1.07</td>
<td></td>
</tr>
<tr>
<td>Marital Status (B)</td>
<td>0.201</td>
<td>0.48</td>
<td></td>
</tr>
<tr>
<td>Paternal Income (B)</td>
<td>-0.111</td>
<td>-1.04</td>
<td></td>
</tr>
<tr>
<td>Paternal Religious Non-Attendance (B)</td>
<td>0.260</td>
<td>2.11*</td>
<td></td>
</tr>
<tr>
<td>Paternal Hispanic (B)</td>
<td>-1.053</td>
<td>-0.59</td>
<td></td>
</tr>
<tr>
<td>Paternal Caucasian (B)</td>
<td>0.152</td>
<td>0.09</td>
<td></td>
</tr>
<tr>
<td>Paternal African American (B)</td>
<td>-1.086</td>
<td>-0.62</td>
<td></td>
</tr>
<tr>
<td>Paternal Asian (B)</td>
<td>0.207</td>
<td>0.11</td>
<td></td>
</tr>
<tr>
<td>Paternal American Indian (B)</td>
<td>0.126</td>
<td>0.13</td>
<td></td>
</tr>
<tr>
<td>Paternal Age (B)</td>
<td>-0.469</td>
<td>-2.15*</td>
<td></td>
</tr>
<tr>
<td>Paternal Education (B)</td>
<td>-0.388</td>
<td>-1.65*</td>
<td></td>
</tr>
<tr>
<td>Maternal Depression (Y5)</td>
<td>1.441</td>
<td>2.43**</td>
<td></td>
</tr>
<tr>
<td>Child Gender (B)</td>
<td>-0.545</td>
<td>-1.64</td>
<td></td>
</tr>
</tbody>
</table>

N=763
R-squared = 0.0620
F (15, 747) = 3.20
Prob > F = 0.000
*prob < .05, ** prob < .01, ***prob <.001
B= Baseline Measure     Y5 = Year Five Measure
Fathers’ Perceptions of Relationship Quality on Child Rule-Breaking in Year-Nine

Tables 4.13 and 4.14 display the OLS regression estimates from the models of paternal perceptions of relationship quality and child rule-breaking in year-nine. In Table 4.13 the variable for marital status was measured during the baseline year while the model in Table 4.14 measures marital status in year-five. The reader can see that both models find considerable support for the hypothesis that paternal perceptions of coercion are associated with higher child rule-breaking behavior in year-nine. Table 4.13 presents the coefficient in the expected positive direction \((b = 0.103, t = 2.05)\). The variable coercion has a range of 0 to 13 and the difference between the lowest perception to the highest \((13 \times 0.103)\) is associated with an increase in child rule-breaking behavior of 1.339. The child rule-breaking scale is a 22-point scale, so the substantive effect of this variable is quite modest, but this variable does appear to nudge children to higher levels of rule-breaking behavior in year-nine. It is noteworthy that in both models presented in Table 4.13 and Table 4.14 the coefficients for relationship instability are in the opposite (negative) direction, although they are not statistically significant. Additionally, and although the affection/support variable is not statistically significant in either model, the coefficient is found to be in the opposite (positive) direction in Table 4.13 and in the expected (negative) direction in Table 4.14. Thus, paternal perceptions of relationship instability and affection/support were found to have no effect on rule-breaking behavior in year-nine. Therefore, no support is found for my hypotheses that paternal reports of relationship instability would increase childhood rule-breaking behavior or that affection/support would decrease childhood rule-breaking behavior.
Regarding control variables in the models, strong support is displayed for the effects of paternal age on childhood rule-breaking behavior in year-nine. The coefficients for both models indicate an inverse relationship between age and child rule breaking behavior (b = -0.253, t = -2.75) (b = -0.187, t = -2.12), and are presented in Table 4.13 and Table 4.14, respectively. In other words, older fathers have children with fewer rule-breaking behavior than younger fathers. Using the coefficient from the model presented in Table 4.13 (-0.253) and moving from the lowest level (1) to the highest level (4) on the 4-point scale for fathers’ age, child rule-breaking behavior decreases by -1.012. Table 4.14 indicates that child gender (b = 0.451, t = -0.401) and paternal education (b = -0.144, t = -2.18) are also associated with child rule-breaking behavior in year-nine. An inverse child gender coefficient indicates that boys are more likely to have higher
rates of rule-breaking behaviors than are girls. Paternal education has an inverse relationship with child rule breaking behavior indicating that as fathers have more education, they report children with fewer rule breaking behaviors.

Table 4.13. Fathers’ Perceptions of Relationship Quality on Child Rule-Breaking in Year-Nine

<table>
<thead>
<tr>
<th>DV Child Rule-Break</th>
<th>Year-Nine</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b</td>
</tr>
<tr>
<td>Paternal Relationship Instability (Y5)</td>
<td>-0.109</td>
</tr>
<tr>
<td>Paternal Affection/Support (Y5)</td>
<td>0.019</td>
</tr>
<tr>
<td>Paternal Coercion (Y5)</td>
<td>0.103</td>
</tr>
<tr>
<td>Marital Status (B)</td>
<td>0.108</td>
</tr>
<tr>
<td>Paternal Income (B)</td>
<td>-0.081</td>
</tr>
<tr>
<td>Paternal Religious Non-Attendance (B)</td>
<td>0.024</td>
</tr>
<tr>
<td>Paternal Hispanic (B)</td>
<td>0.144</td>
</tr>
<tr>
<td>Paternal Caucasian (B)</td>
<td>0.432</td>
</tr>
<tr>
<td>Paternal African American (B)</td>
<td>0.460</td>
</tr>
<tr>
<td>Paternal Asian (B)</td>
<td>0.535</td>
</tr>
<tr>
<td>Paternal American Indian (B)</td>
<td>-0.521</td>
</tr>
<tr>
<td>Paternal Age (B)</td>
<td>-0.253</td>
</tr>
<tr>
<td>Paternal Education (B)</td>
<td>-0.100</td>
</tr>
<tr>
<td>Maternal Depression (Y5)</td>
<td>0.113</td>
</tr>
<tr>
<td>Child Gender (B)</td>
<td>-0.193</td>
</tr>
</tbody>
</table>

N= 768
R-squared = 0.0522
F (15, 752) = 2.76
Prob > F = 0.0004
*prob < .05, ** prob < .01, ***prob <.001
B= Baseline Measure     Y5 = Year Five Measure
Table 4.14. Fathers’ Perceptions of Relationship Quality on Child Rule-Breaking in Year-Nine

<table>
<thead>
<tr>
<th>DV Child Rule-Breaking</th>
<th>Year-Nine</th>
<th>b</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paternal Relationship Instability (Y5)</td>
<td></td>
<td>-0.049</td>
<td>-0.60</td>
</tr>
<tr>
<td>Paternal Affection/Support (Y5)</td>
<td></td>
<td>-0.017</td>
<td>-0.36</td>
</tr>
<tr>
<td>Paternal Coercion (Y5)</td>
<td></td>
<td>0.103</td>
<td>2.31*</td>
</tr>
<tr>
<td>Marital Status (Y5)</td>
<td></td>
<td>0.074</td>
<td>0.48</td>
</tr>
<tr>
<td>Paternal Income (B)</td>
<td></td>
<td>-0.022</td>
<td>-0.74</td>
</tr>
<tr>
<td>Paternal Religious Non-Attendance (B)</td>
<td></td>
<td>0.024</td>
<td>0.58</td>
</tr>
<tr>
<td>Paternal Hispanic (B)</td>
<td></td>
<td>-0.162</td>
<td>-0.32</td>
</tr>
<tr>
<td>Paternal Caucasian (B)</td>
<td></td>
<td>0.867</td>
<td>0.37</td>
</tr>
<tr>
<td>Paternal African American (B)</td>
<td></td>
<td>0.179</td>
<td>0.35</td>
</tr>
<tr>
<td>Paternal Asian (B)</td>
<td></td>
<td>0.258</td>
<td>0.46</td>
</tr>
<tr>
<td>Paternal American Indian (B)</td>
<td></td>
<td>-0.203</td>
<td>-0.58</td>
</tr>
<tr>
<td>Paternal Age (B)</td>
<td></td>
<td>-0.187</td>
<td>-2.12*</td>
</tr>
<tr>
<td>Paternal Education (B)</td>
<td></td>
<td>-0.144</td>
<td>-2.18*</td>
</tr>
<tr>
<td>Maternal Depression (Y5)</td>
<td></td>
<td>0.181</td>
<td>1.01</td>
</tr>
<tr>
<td>Child Gender (B)</td>
<td></td>
<td>-0.451</td>
<td>-4.01***</td>
</tr>
</tbody>
</table>

N=790  
R-squared = 0.0789  
F (15, 774) = 4.42  
Prob > F = 0.000  
*prob < .05, ** prob < .01, ***prob <.001.  
B= Baseline Measure    Y5 = Year Five Measure
CHAPTER 5. DISCUSSION

This dissertation examined the extent to which couples’ relationship qualities were associated with child externalizing behavior problems. Data were taken from the Fragile Families and Child Wellbeing Study (FFCWS), a prominent national dataset that enabled longitudinal and cross-sectional analyses. Independent variables included couples’ affection/support, coercion, and relationship instability, and dependent variables included child aggression and rule-breaking behaviors.

**Effects of Affection, Support, and Coercion on Child Externalizing Behavior Problems**

The findings from this study indicate that there are strong, consistent relationships between parents’ reports of affection and support and child externalizing behavior problems, suggesting that problems with affection and support in couples’ relationships are an important risk factor for the development of children’s externalizing behavior problems. Although a definitive causal path between these variables cannot be established in these analyses, affection and support were found to be significantly associated with child aggression and rule-breaking behavior across models. There were also, however, consistent linkages of maternal depression and family socio-economic status (as measured by maternal income and maternal and paternal education) with children’s behavior problems, indicating the significant role that these family circumstances also play in children’s well-being. It is plausible that any or all of these factors may be responsible for the origin of children’s behavior problems. Nevertheless, the longitudinal and cross-sectional evidence support the argument that the quality of affection and support between cohabiting parents is directly linked to their children's behavioral problems and therefore should be considered an important focus for intervention. This finding supports previous research that has indicated that supportive relationships are important for healthy child
development and are linked with lower rates of behavior problems in children (Goldberg & Carlson, 2014; Ratcliffe et al., 2016).

It is important to note that this study adds to the limited research, particularly to the studies conducted by Goldberg and Carlson (2014) and Ratcliffe et al. (2016) that mothers’ and fathers’ reports of positive relationship qualities, specifically their experiences of affection and support, were significantly associated with their children’s behavior problems. These findings are an important contribution to the field of social work as the family system is the focal point of much research and intervention.

Fathers who perceived higher levels of coercion within the couple’s relationship were found to have children who were more likely to exhibit rule-breaking behavior at age nine. However, mothers’ perceptions of coercion were not associated with rule-breaking behavior. The CBCL rule-breaking scale has markers of anti-social behavior as evidenced by behaviors such as lacking empathy, engaging in vandalism, and stealing. This mirrors recent work by DeGarmo and Jones (2019) that found that fathers’ coercive behavior, more than mothers’, was associated with child anti-social behavior.

Relationship instability was not found to have a significant effect across models. When looking more closely at the relationship instability construct, the careful reader may note that it was created with only two items. The four items which comprised the original FFCWS CRQ (See Appendix A: A Description of Variables) were found to also have low internal consistency reliability and factor analytic scores. The selection of the 2 items that represent the relationship instability subscale used in the present study were an attempt to derive a subscale with a narrower conceptual focus. This, however, did not improve its internal consistency. Thus, future research should probably incorporate a broader range of items to define relationship instability.
and identify how it functions within the scope of the family system to see whether it may in fact influence child behavior.

**Effects of Demographic Variables on Child Externalizing Behavior Problems**

Maternal depression was significantly associated with child aggression at ages five and nine in both maternal and paternal regression models. Though not a principal independent variable, maternal depression was found to be significantly associated with the dependent variables in one-half of the regression models and is discussed in more detail here. Previous literature provided evidence for a causal linkage between maternal depression and child externalizing behavior problems (Allen et al., 2010; Gajos & Beaver, 2017; Park et al., 2018). Mothers who are depressed have often been found to be emotionally unavailable to their children, thus increasing the risk for child behavior problems (Sahingoz et al., 2013). Depression likely negatively influences the lens through which a mother interprets her child’s behavior, thus increasing the likelihood of hostile and coercive interactions or neglectful behavior (Allen et al., 2010; Gajos & Beaver, 2017; Park et al., 2018). To better understand the processes at work behind this finding, future research should examine linkages between the levels of support mothers experience in their marriages and their depressive symptoms.

Previous research supports the finding that boys are more likely to exhibit problematic externalizing behaviors and be diagnosed with Oppositional Defiance Disorder and Conduct Disorder in later childhood (Maughan et al., 2004; Nock et al., 2007; Visser et al., 2016). This study found that boys were more likely to exhibit rule-breaking behaviors than girls. This finding was true in at least half of the models for boys who were nine years old for both aggression and rule breaking behaviors.
Baseline measures of income and education were two control variables that were found to be significant and predictive of child aggression and rule-breaking behavior. Across the literature, studies reported that child behavior problems increase when parents have lower SES and education levels (Piotrowska et al., 2015; Roy et al., 2019; Sourander, 2001). Child behavior problems can develop even when parents perceive a financial deficiency as the stress associated with financial necessity has been associated with poor parenting practices (Roy et al., 2019). One might argue that the effect of income and education on child behavior supports Belsky’s (1984) model and his assertions of work and parenting. As parents’ stress levels increase due to financial need – whatever the reason – parent-child relationships suffer (Belsky, 1984; Roy et al., 2019). Thus, the continued investigation of parent income and education as a predictor of child behavior problems is important for future research.

It was expected that as people age, they would tend to have a decrease in marriage rates, and yet there was an increase in the sample sizes when estimating the regressions with the year-five marital status variable. These unions may explain the unusual rise in sample sizes in the models with even-numbered tables. Social science research examined mobility related to living situations in low-income families, particularly due to hardship or financial necessity (DeLuca et al., 2019; Wang et al., 2019). Low-income families have been linked with moving closer to friends or relatives after having children or being forced to move more frequently due to poor or unsafe living conditions (DeLuca et al., 2019; Wang et al., 2019). Despite the presence of documented risk factors for divorce, lower SES and higher rates of non-cohabitation, a number of previously unmarried biological parents were married five years after the birth of the focal child (Reichman et al., 2001).
Implications for Social Work Practice

Social workers serve children with behavior problems in many different areas such as the school system, the child welfare system, and mental health clinics. Any assessment or treatment of a child presenting with behavior problems must also include the assessment and treatment or referral of the caregivers. When assessing parents, couples’ relationship quality and whether the relationship is supportive, affectionate, or coercive in nature should be a primary concern for social workers. Social workers should pay particular attention to the couple when children present with aggression or rule breaking behavior. If problems within the couples’ relationship exist, the clinician should strive to strengthen the relationship by increasing affection and support as this may directly impact child behavior by decreasing aggression and rule breaking behavior.

The extent to which fathers perceive that they are in coercive relationships should also be assessed when their children present with behavior problems. The association found in this study involving fathers’ perceptions of coercion within their romantic relationships and their children’s behavior problems raises several questions. Does this mean that women are more coercive toward their partners than men? Alternatively, might this indicate a gendered effect, such that some men might be particularly sensitive to perceptions, whether justified or not, that their female partners behave in a coercive way towards them. Social workers should consider the power dynamics within the relationships where coercion is a factor, real or only perceived, and assess the degree to which this is a destabilizing risk to the family.

Maternal depression should be assessed when a child presents with behavior problems. Like previous research, this study supports a linkage between maternal depression and behavior problems in children (Gajos & Beaver, 2017; Park et al., 2018). Social work practitioners should be trained to routinely assess depression in parents, especially mothers, where child behavior
problems present, and to refer or treat accordingly. Any presentation of childhood behavior problems should entail a systemic view of family and couple functioning, with particular attention to these specific personal relationship qualities.

**Limitations**

The current study used both longitudinal and cross-sectional analyses to examine linkages between couples’ relationship qualities and child externalizing behavior problems. The chosen sampling strategy selected cohabiting biological parents from wave-one and wave-four, and therefore the study did not follow the same research participants over time. There also was a mix of both longitudinal and cross-sectional analyses when estimating with the year-five marital status variable. The families utilized with the year-five marital status variable may not be the same families as those chosen in wave-one. Thus, the results of this study were limited to those biological parents who were cohabiting (married or not married) during waves-one and -four.

This dissertation utilized secondary data analysis from the FFCWS data set. The statistical methodology did not include the weights from the larger public data set, which would have allowed the results of the study to be generalizable to the larger U.S. population. Without the weights, a study using a random sample is limited only to a nationally representative sample of non-marital births in large cities of over 200,000. This study potentially narrowed the sample by utilizing wave-one and wave-four cohabiting biological parents, thus this sample cannot be representative of non-marital births of large cities.

Another limitation of this study was the low alpha reliability of the coercion variable. Problems with the coercion construct may have been avoided had the entire coercion panel within the CRQ-S been utilized. However, many of the coercion items within the CRQ-S included violence and were excluded due to their irrelevance to the topic of this dissertation. It
may be beneficial to include all items in future research to calculate a more robust alpha and statistical results. Furthermore, there is a limitation related to not using the domestic violence questions in the FFCWS as domestic violence influences child behavior problems.

Social desirability bias can have an impact on study outcomes, and this should be considered as the FFCWS is primarily either self-report or mother/father report (Rubin & Babbie, 2008). The responses to questions in the FFCWS are gathered by an interviewer, rather than a pencil and paper questionnaire; therefore, the presence of social desirability bias is a reasonable assumption to make.

**Implications for Future Research**

This dissertation utilized FFCWS data to measures couples’ relationship quality and child externalizing behavior problems. The same independent and control variables were used in each model. Three dependent variables were utilized four times, and the relationship status variable was utilized six times each. Out of twelve models, no two yielded the same results. It is important for future researchers to consider and explore which specific relationships between variables and mediating variables might have interaction qualities.

Child externalizing behavior is only one aspect of child behavior that is measured by the CBCL. The CBCL also measures childhood internalizing behavior, such as anxiety and depression. Exploring how couples’ relationship quality may affect childhood internalizing behaviors is an important and beneficial research topic related to family systems theory and Belsky’s (1984) Determinants of Parenting Model.

Future research focused on linkages between couples’ interactive qualities and their children’s behavior problems should include a closer examination of the gendered dimensions of couples’ interactions. Research on marital problems, in particular that of Gottman and
colleagues, has illuminated important and common gendered patterns in the ways in which men and women differentially express anger and conflict (Gottman, 1997). The present study identified consistent differences between mothers and fathers in the extent to which their perceptions of affection and coercion were associated with their children’s behavior problems. These differences may involve common gendered dimensions of interactive qualities and a better understanding of these is likely to improve intervention efforts.

Conclusions

This study examined, from a family systems perspective, how childhood externalizing behavior problems might be created or exacerbated by the quality of the relationship between their biological live-in parents. These results underscored the central theme of the FFCWS, which is to utilize data and scientific inquiry in order to infer what can be done to decrease risk factors within fragile families. The results from this study suggest that relationship dynamics within families involve mutually influential processes. To more effectively serve the needs of vulnerable families, particularly those where children present with externalizing behavior problems, an in-depth understanding of the qualities of family relationships is needed. The well-being of parents, particularly mothers, and the well-functioning of parental relationships are of vital importance to the well-being of their children. Those who are charged with the important tasks of service provision to families in need should keep foremost in mind how relationship qualities are expressed and contribute to the functioning of their members.
APPENDIX A. DESCRIPTION OF VARIABLES

**Dependent Variables**

**Aggression Year-Five**

Rate from 0 – Often True, 1 – Sometimes True, 2 – Never True

1. Argues a lot
2. Brags or boasts
3. Cruel, bullying, or mean to others
4. Demands a lot of attention
5. Child destroys his/her own things
6. Destroys things belong to family or others
7. Disobedient at home
8. Disobedient at school
9. Easily jealous
10. Gets in many fights
11. Physically attacks people
12. Screams a lot
13. Showing off/clowning
14. Stubborn/sullen/irritable
15. Has sudden changes in mood or feelings
16. Talks too much
17. Teases a lot
18. Has temper tantrums or hot temper
19. Threatens people
20. Unusually loud

**Aggression Year-Nine**

Rate from 0 – Often True, 1 – Sometimes True, 2 – Never True

1. Argues a lot
2. Brags or boasts
3. Cruel, bullying, or mean to others
4. Demands a lot of attention
5. Child destroys his/her own things
6. Destroys things belong to family or others
7. Disobedient at home
8. Disobedient at school
9. Easily jealous
10. Gets in many fights
11. Physically attacks people
12. Screams a lot
13. Showing off/clowning
14. Stubborn/sullen/irritable
15. Has sudden changes in mood or feelings
16. Talks too much
17. Teases a lot
18. Has temper tantrums or hot temper
19. Threatens people
20. Unusually loud

**Rule-Breaking**

Rate from 0 – Often True, 1 – Sometimes True, 2 – Never True

1. Child drinks alcohol without parents’ permission
2. Child doesn’t seem to feel guilty after misbehaving
3. Child breaks rules at home
4. Child lies or cheats
5. Child prefers being with older children
6. Child runs away from home
7. Child sets fires; child has sexual problems
8. Child steals at home
9. Child steals outside of the home
10. Child swears or uses obscene language
11. Child thinks too much about sex
12. Child smokes, chews, or sniffs tobacco
13. Child is truant, skips school
14. Child hangs around with others who get in trouble
15. Child uses alcohol or drugs for non-medical purposes

**Independent Variables**

**Couple Affection/Support**

3-point Likert scale of (1) never, (2) sometimes, or (3) often

1. She/He expresses affection or love for you.
2. She/He encourages or helps you to do things that are important to you.
3. She/He listens to you when you need someone to talk to.
4. She/He really understands your hurts and joys.

**Couple Coercion**

3-point Likert scale of (1) never, (2) sometimes, or (3) often

1. She/He insults or criticizes you or your ideas.
2. She/He tries to keep you from seeing or talking with your friends or family.
3. She/He tries to prevent you from going to work or school.
4. She/He withholds money, makes you ask for money, or takes your money.
5. She/He withholds sex to try to control your behavior.
6. She/He insults or criticizes you for not taking good enough care of the child or your home.

Relationship Instability

3-point Likert scale of (1) never, (2) sometimes, or (3) often

1. How often have you thought your relationship with (MOTHER/FATHER) might be in trouble?
2. How often have you and (MOTHER/FATHER) discussed ending your relationship?

Marital Status

Baseline Measure of Marital Status

0 - Married and living together
1 - Cohabiting

Year-Five Measure of Marital Status

0 - Married and living together
1 – Cohabiting

Demographic Variables

Income

1 – less than $5,000
2 – $5,000 to $9,999
3 – $10,000 to $14,999
4 – $15,000 to $19999
5 – $20,000 to $24,999
6 – $25,000 to $34,999
7 – $35,000 to $49,999
8 – $50,000 to $74,999
9 – $75,000 +

Education

0 – less than high school
1 – high school diploma
2 – some college or technical school
3 – college or graduate school
Age of Biological Parents

1 – 15-19 years
2 – 20-29 years
3 – 30-39 years
4 – 40 +

Religious Non-Attendance

About how often do you attend religious services?

1- Once a week or more
2- Several times a month
3- Several times a year
4 - Hardly ever
5 - Not at all

Child gender

0 – boys
1 – girls

Control Variable

Maternal Depression

Is mom depressed?

0 – No
1 – Yes
APPENDIX B. COUPLES’ RELATIONSHIP QUALITY QUESTIONNAIRE

D6. Next I’m going to read some statements that you may or not agree with. After I read each statement, please tell me whether or not you strongly disagree, disagree, neither agree nor disagree, agree, or strongly agree. First . . .

(READ ITEM). Would you say you strongly disagree, disagree, neither agree nor disagree, agree, or strongly agree?

<table>
<thead>
<tr>
<th></th>
<th>STRONGLY DISAGREE</th>
<th>DISAGREE</th>
<th>NEITHER AGREE NOR DISAGREE</th>
<th>AGREE</th>
<th>STRONGLY AGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>D6A. My relationship with (FATHER) is more important to me than almost anything else in my life.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>D6B. I may not want to be with (FATHER) a few years from now</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>D6C. I like to think of (FATHER) and me more as a couple than as two separate people</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>D6D. I want this relationship to stay strong no matter what rough times we may encounter</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>D6E. I am happy with my sexual relationship with (FATHER)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>D6F. I can trust that (FATHER) will not cheat on me with other people</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Sometimes couples have serious problems in their relationship and have thoughts of breaking up. Even people who get along well with their partner sometimes wonder whether their relationship is working out. For the next set of statements, please tell me how often each is true about your relationship with (FATHER) over the past year.

First, (READ ITEM) Would you say that over the past year this was often, sometimes or never true?

<table>
<thead>
<tr>
<th></th>
<th>OFTEN</th>
<th>SOMETIMES</th>
<th>NEVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>D6G. (HOW OFTEN HAVE) you thought your relationship with (FATHER) might be in trouble?</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>D6H. You and (FATHER) discussed ending your relationship?</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>D6I. You talked to a close friend or relative about breaking up with (FATHER)?</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
D7. Now, think about how (FATHER) behaves towards you. For each statement I read, please tell me how often he behaves this way.

(First) (READ ITEM). Does (FATHER) behave this way often, sometimes, or never?

<table>
<thead>
<tr>
<th>Statement</th>
<th>OFTEN</th>
<th>SOMETIMES</th>
<th>NEVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>D7A. He is fair and willing to compromise when you have a disagreement.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D7B. He expresses affection and love for you</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D7C. He insults or criticizes you or your ideas</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>D7D. He encourages or helps you to do things that are important to you</td>
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<td></td>
</tr>
<tr>
<td>D7E. He tries to keep you from seeing or talking with your friends or family</td>
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<tr>
<td>D7F. He tries to prevent you from going to work or school</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>D7G. He withholds money, makes you ask for money, or takes your money</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>D7H. He slaps or kicks you</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D7I. He hits you with a fist or an object that could hurt you</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D7J. He tries to make you have sex or do sexual things you don’t want to do</td>
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<tr>
<td>D7K. He withholds sex to try to control your behavior</td>
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<td></td>
</tr>
<tr>
<td>D7L. He insults or criticizes you for not taking good enough care of the child or your home.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D7M. He throws something at you</td>
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<td></td>
<td></td>
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<tr>
<td>D7N. He pushes, grabs, or shoves you</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D7O. He listens to you when you need someone to talk to</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D7P. He really understands your hurts and joys</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
IRB LETTER

Date: March 23, 2020

To: Malcolm Richardson
Interim Dean, Graduate School

Through: Stephen Beck
Associate Vice President,
ORED

Re: Unapproved Project

The IRB office received notice that a human subject project was conducted without IRB review/approval. The work by Ph.D. student Erin Lovett, whose major professor is Timothy Page, used a publicly available dataset which contains de-identified human data. According to 45CFR46, this type of work requires an exempt application. If the PI had submitted a proper application, the project would have received exemption status under Category 4, Paragraphs A and B. This category, and the paragraphs, appear on the application as do all the possible exemptions. As you know, IRB’s cannot give retroactive approval and, therefore, this project will be recorded in the IRB files as unapproved.

Thank you,

Dennis Landin
Professor Emeritus, Kinesiology Chair,
Institutional Review Board
dlandin@lsu.edu

cc: Elizabeth Cadarette
Timothy Page
Erin Lovett
REFERENCES


Sample and design. *Children and Youth Services Review*, (23)4-5. 303-326. https://doi.org/10.1016/S0190-7409(01)00141-4


VITA

Erin Wallace Lovett was born in Atlanta, Georgia. She received a Bachelor of Science from the University of Louisiana at Lafayette and a Master of Social Work from Louisiana State University. Erin is a Licensed Clinical Social Worker with a private practice in Lafayette, Louisiana. Her employment history includes working in addiction treatment, chronic mental health treatment, and family therapy.