

FAMILY STRUCTURE, COUPLE PROCESSES AND CHILD PHYSICAL ABUSE

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Abstract

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Prior studies have confirmed associations between family structure, economic pressure, harsh parenting and physical maltreatment. Research about family structure and stress has also suggested that couple processes may play a role in the etiology of harsh parenting and abuse. Because no known studies have examined the direct effects between couple processes and physical maltreatment, the aim of the present study was to further explore this association. Data were obtained from the Fragile Families and Child Wellbeing Study, and a subsample of 2555 families were selected. Family structure and other contextual variables were measured at baseline, couple processes were measured at wave 1, harsh parenting and physical maltreatment were measured at wave 3, and economic pressure was measured across waves.

Subscales from the Parent-Child Conflict Tactics Scales were used to measure harsh parenting and physical maltreatment. Associations were found between family structure and economic pressure, economic pressure (at year three) and physical maltreatment, couple conflict and harsh parenting, and couple conflict and physical maltreatment. These findings suggest that further exploration into the relations between couple processes, harsh parenting, and physical maltreatment is needed.

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CHAPTER ONE

INTRODUCTION

Child maltreatment has been an issue of great concern because of its prevalence in society. It is also of concern because child maltreatment often results in both injuries and fatalities (Swahn et al., 2006). In recent decades, an approximate two to three million child abuse and neglect cases have been reported in the United States each year (Meyerson, Long, Miranda, & Marx, 2002; Ornduff, Kelsey, & O'Leary, 2001). The previous statistics have resulted in an influx of research studies that have attempted to answer various questions surrounding this phenomenon. Understanding which children are at the greatest risk for maltreatment, along with the health consequences, are only a few of the questions that researchers have attempted to answer (Hussey, Chang, & Kotch, 2006).

In the American culture, child maltreatment has been defined as any harmful or deplorable act that is committed against a child (Kaplan, Pelcovitz, & Labruna, 1999). Such acts are a concern because they disrupt children's normal development in the cognitive and socioemotional domains. The four primary types of child maltreatment are (a) physical abuse, (b) sexual abuse, (c) emotional/psychological abuse, and (d) neglect. Witnessing domestic violence has emerged as a possible fifth group because research has indicated that children who witness violent acts may experience the same psychological maladjustments as children who were actual victims of violence (Herrera & McCloskey, 2001; Kaplan et al., 1999). Various negative outcomes have been associated with child abuse and neglect. The most common are low self-esteem and depression (Brown, Cohen, Johnson, & Smailes, 1999; Kaplan et al., 1999; Mullen,

Martin, Anderson, Romans, & Herbison, 1996; Wolfe, Scott, Wekerle, Pittman, 2001), high-risk behaviors (e.g., sexual promiscuity and underage drinking) and aggression (Fergusson & Lynskey, 1997; Kaplan et al., 1999; Lau, Valeri, McCarty, & Weisz, 2006; Mullen et al., 1996), future victimization in later relationships (Herrera & McCloskey, 2001; Ornduff et al., 2001), adolescent and/or adult delinquency (Heck & Walsh, 2000; Herrera & McCloskey, 2001), low school achievement and future socioeconomic status (Herrera & McCloskey, 2001; Kaplan et al., 1999; Zielinski, 2005), and Post Traumatic Stress Disorder (PTSD) (Ackerman, Newton, McPherson, Jones, & Dykman, 1998; Brown et al., 1999; Kaplan et al., 1999; Ornduff et al., 2001). Other less studied outcomes associated with child maltreatment are various adolescent health risks such as poor health, obesity, and excessive cigarette use (Hussey et al., 2006).

Although the previous outcomes are associated with all forms of child maltreatment, studies have illustrated that some outcomes are exacerbated by physical abuse specifically. Furthermore, socioeconomic status and family structure are two particular contextual factors that have been found to predict physical maltreatment (Berger, 2004; Wark, Kruczek, & Boley, 2003). Both past and present research has suggested that living in more fragile family structures such as single parent and cohabiting families increases the likelihood of child physical abuse (when compared to two-parent first married families) (Manning & Brown, 2006; Martin & Walters, 1982). The aim of this study is to examine the relations among child maltreatment (physical abuse specifically), couple processes, and family structure by using the Fragile Families data set (Reichman, Teitler, Garfinkel, & McLanahan, 2001). This data set is useful for the questions of interest because it is large, longitudinal, and ethnically diverse. Examining these

linkages is important, because much of the prior research about abuse and family structure has failed to incorporate couple processes into its designs or analyses. More specifically, I will focus on couple processes (defined as contact, conflict and general relationship quality), and contextual variables such as economic stress, poverty level, age, education, and family structure (two-parent first married, cohabiting biological and single parent homes). Three waves of data (Wave 1-Baseline, Wave 2-Year One, and Wave 3-Year Three) will be used in this analysis.

The prevalence of child maltreatment in society suggests a need for research to better understand the processes that occur in abusive homes, along with those that occur within the interparental relationship. Expected results from this research have long-term implications for practitioners who work with abusive parents, as well as the policy makers who implement child abuse related policies.

CHAPTER TWO

THEORETICAL FRAMEWORK

Various theories have been utilized to explain the etiology of child abuse and neglect. Bronfenbrenner's Model of Ecological Development, Belsky's Expanded Ecological Theory, and the Family Economic Stress Model are the theoretical frameworks I will use to explain the occurrence of childhood physical abuse and its relation to family structure. Bronfenbrenner's ecological model stresses the influence of environmental factors by illuminating the five major systems that contribute to a child's development (Bronfenbrenner, 1986). These five systems are the *microsystem*, *mesosystem*, *exosystem*, *macrosystem* and *chronosystem*. The microsystem consists of the contexts with which the child has direct interaction, such as the family, school and neighborhood. The exosystem consists of the contexts that the child is affected by but does not have direct interaction with, such as the parent's job or social services agencies. The mesosystem is the relationship that exists between the contexts of the microsystem (if any); the macrosystem includes the dominant cultural attitudes; and the chronosystem incorporates societal changes over time.

Bronfenbrenner's model was selected to explain the etiology of childhood physical abuse because it illuminates how external stressors experienced by physically abusive parents can induce the negative processes that often result in child maltreatment. However, for the purpose of this study it will only be used to describe the general ecological framework, as more focus will be placed on the other two theories. Furthermore, in his later writings about external influences and healthy family relationships, Bronfenbrenner (1989) stressed the importance of the previous

correlations between parental characteristics and experiences, and their implications on intrafamilial processes. Belsky (1980) reported that Bronfenbrenner's initial division of ecological contexts was especially important because it concurrently considered (a) the processes that occur in the home, (b) the forces of the larger society, and (c) the influence of values and dominant cultural attitudes. Unfortunately, despite its strengths and general ability to explain the etiology of childhood physical abuse, one weakness of Bronfenbrenner's model is its inability to incorporate and explain the effect of the individual differences or parenting styles that parents bring to the microsystem (Belsky, 1980). Belsky attempted to address this weakness by combining Bronfenbrenner's model with the ideas that Tinbergen (1951) proposed about child maltreatment. According to Tinbergen, the *ontogenic development* of the parent must first be examined to determine the origin of the abusive behavior that a parent inflicts upon their child or children. Belsky stated that this researcher defined ontogenic development as an amalgam of the individual personalities and experiences that parent perpetrators bring to both the family setting and their parenting role. Tinbergen believed that parental ontogenesis was important to incorporate into the study of child maltreatment, since much of his research demonstrated that parent perpetrators often shared a history of abuse in their own childhoods.

Belsky's Theory

Belsky's (1980) framework about the potential causes of child maltreatment consisted of four levels. These four levels are the *ontogenic development* of the parent, the *microsystem*, the *exosystem*, and the *macrosystem*. Parental ontogenic development represents the individual differences and experiences that parents bring with them into the family setting. Belsky's

definition of this level of analysis remained as Tinbergen originally defined it. His definition of the exosystem and macrosystem also remained as Bronfenbrenner originally defined them. The only difference was that in the case of child maltreatment, Belsky limited the microsystem to the family setting in which the abuse occurs. He also stated that in addition to the macrosystem incorporating the dominant cultural values of the society, it also subsumes belief systems that foster child maltreatment through their influence on the ontogenic development of the parent. Because Belsky's microsystem only focused on the family setting in which child maltreatment occurs, it is important to consider that the processes that are embedded into this setting may play a contributing role in the maltreatment that is inflicted. Belsky later examined this likelihood more closely. In 1984, he developed a parenting process model that illustrated how child maltreatment is influenced by (a) the parents' unique history and personalities, (b) the child's personality characteristics, and (c) the parents' sources of stress and support. When one of the components of this model is maladjusted (and when the parents' sources of stress outweigh their sources of support), parents are more likely to adopt processes that result in child maltreatment (Belsky, 1984). In other words, this model illustrates that negative processes can either occur when the temperament and personalities of a parent and child are not a good fit, or when parents' sources of stress are too overwhelming for them to always think rationally.

Belsky (1993) later incorporated broader contexts such as community and society into his model, in addition to parental factors and child characteristics. His findings highlighted differences in processes that have been observed in abusive versus non-abusive homes. Parents who inflicted maltreatment had less pleasant interactions with their children, and parents who

inflicted physical maltreatment specifically were found to be both less supportive and less likely to direct positive and prosocial behaviors towards their children. These parents also tended to express less affection, and were often less responsive to their child's initiations for affection when compared with non-abusive parents (Belsky, 1993). These findings suggest that parents who display less supportive behaviors are more likely to utilize physical punishment practices that result in maltreatment. They also suggest that physically maltreated children perceive and report less support from their parents. This two-way process may especially hold true since the studies that Belsky cited documented this interaction in both older and younger children.

Family Economic Stress Model

The Family Economic Stress Model, first by Conger and Elder (1994), has been expanded by numerous researchers to identify many outcomes and implications of economic stress (Conger, Ge, Elder, Lorenz, & Simons, 1994; McLoyd, 1990; Mistry, Lowe, Brenner, & Chen, 2008). More specifically, this model was created to serve as a framework to understand how economic stress and pressure influence both parenting processes and child outcomes. Early versions of the model theorized that economic hardship and pressure increases depression among parents, decreases marital quality and support, and increases harsh parenting practices (Conger & Elder, 1994). Later versions added parent-child conflict and child outcomes to the framework (Conger et al., 1994; Mistry et al., 2008). Because the economic stress model defines family stress as an extension of individual stress, a family's adjustment is presumed to be challenged by the environment to the point that it may threaten the family's ability to cope. Furthermore, when families cannot resolve their economic stressors, this can significantly threaten their overall well-being.

Economic pressure is a broad contextual factor that fits within the exosystem and macrosystem of Belsky's Expanded Ecological Theory. Following from Belsky's Models and the Family Economic Stress Theory, I will examine economic pressure, negative couple processes, and harsh parenting as specific macro- and micro-level factors that predict child maltreatment. As mentioned, Bronfenbrenner's Model of Ecological Development has only been introduced to provide important background information about the general ecological framework. It is plausible that the economic pressure experienced by the families in the Fragile Families dataset might interfere with couple processes, and increase the occurrence of harsh parenting practices. Such a pathway has previously been identified to increase the likelihood of child maltreatment (McLoyd, 1990).

Because each of the mentioned theoretical frameworks can substantially contribute to understanding the etiology of abuse and neglect, I combine these models to illustrate my theory of how context and interactions work together to increase the likelihood of maltreatment (See Figure 1).

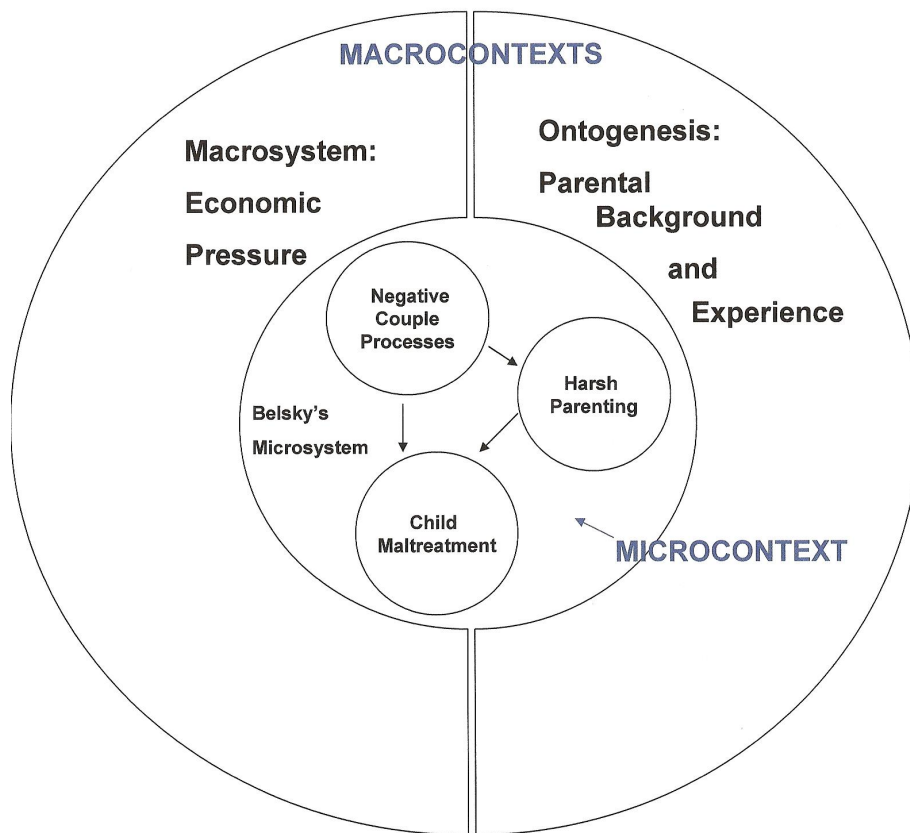


Figure 1: Combined Theoretical Ideas

This framework includes two macrocontexts and one microcontext. The first macrocontext is labeled the *macrosystem*, and encompasses the economic stress and pressure that is experienced by the family. The second macrocontext is labeled the *ontogenesis*, and includes the parents' individual backgrounds and experiences. The microcontext is parallel to Belsky's definition of *microsystem*, which is the family setting in which the abuse occurs (Belsky, 1980). The framework also suggests that negative couple processes lead to both harsh parenting and child maltreatment, and that harsh parenting mediates the relation between couple processes and

maltreatment.

Overall, the analysis of the etiology of child maltreatment focuses on the parent-child interaction context. Also, understanding the dynamics of family economic stress suggests that negative couple processes may in fact increase the likelihood of child physical abuse more than family structure. Even though strong correlations have been found between physical maltreatment and family composition (Manning & Brown, 2006; Martin & Walters, 1982), Bronfenbrenner, Belsky, and Conger and Elder's theoretical frameworks illustrate that the processes that exist in an abusive household may contribute to the abuse more than the family's structure itself. In conclusion, each of these frameworks can be used to explain the occurrence of childhood physical abuse, and to examine the role that couple processes play in its etiology.

CHAPTER THREE

LITERATURE REVIEW

Family Structure and Child Maltreatment (Direct Effects)

Much of the older research that examined the relation between child physical abuse and family structure focused on step-families and single-parent homes. Martin and Walters (1982) found that step-parents were more likely to physically abuse their step-children than biological parents were to abuse their children. The authors concluded that the increased level of stress in step-families while members adjust to a new living situation may be a contributing factor to abuse. Sack, Mason, and Higgins (1985) later reported child physical abuse was twice as frequent in single-parent as opposed to two-parent homes. Although both of the previous studies made distinct contributions to the literature, neither of them measured specific couple processes that occur in these homes that might contribute to their increased occurrences of child physical abuse. Gelles (1989) reported higher rates of child physical abuse in single-parent households, after controlling for variables such as parental gender, income and age. Gelles specifically found single-mothers had a high likelihood of abusing their children when they occupied a lower socioeconomic status. Although each of these studies assessed the direct linkage between family structure and child maltreatment, they also examined stress (often economic) *and* harsh parenting practices as the mediators between family structure and physical maltreatment (Gelles, 1989; Martin & Walters, 1982; Sack et al. 1985).

More recent research related to child physical abuse and family structure reported similar findings. A study of family characteristics and physical punishment practices found that single

and married mothers were equally likely to use spanking as a punishment practice, but single-mothers spanked their children much more frequently (Giles-Sims, Straus, & Sugarman, 1995). In other words, harsh parenting was once again examined as a mediator between family structure and child maltreatment. A later study that examined general family characteristics, family structure, and parental age also found that single-mothers who occupy lower socioeconomic statuses are more likely to physically abuse their children than mothers from other family types (Egan & Carpenter, 1999). Similarly, Oliver, Kuhns, and Pomeranz (2006) found that both single mothers and single fathers more frequently abuse their children than parents in two-parent homes. This pattern is especially true if the parent is a teenager, occupies a low socioeconomic status, and has limited education. Another study about structure and abuse also examined how household composition was related to fatal child maltreatment (Stiffman, Schnitzer, Adam, Kruse, & Ewigman, 2002). This research found that children were 8 times more likely to die from maltreatment when unrelated adults were present in the home. These findings were especially true when the non-biological adult was male. Stiffman et al. (2002) did not find any increased fatality risk for children residing in single parent homes. In contrast, Nobes and Smith (2002) reported that the low-income single mothers in their study were no more likely to use excessive physical punishment or engage in physical maltreatment than higher income single mothers or mothers living with a spouse or partner. Many of the children who were exposed to severe physical punishment in the two-parent homes had at least one parent with psychiatric disturbances.

Children who live in cohabiting families also have an increased likelihood of experiencing abuse. Some research has indicated that lower economic stability and increased economic pressure among these families may contribute to this pattern (Manning & Brown, 2006; Thomas & Sawhill, 2005). More specifically, although cohabiting families have been found to be slightly better off economically than those in single-parent homes, they are still not nearly as financially stable as married families (Manning & Brown, 2006; Thomas & Sawhill, 2005). Because the pathway from economic stress to harsher parenting and abuse is proposed by the Family Economic Stress Model (Conger & Elder, 1994), a linkage between cohabiting family structure and physical maltreatment can once again be reasonably assumed. The economic stress that is often experienced by cohabiting families (Manning & Brown, 2006; Thomas & Sawhill, 2005) increases the likelihood that cohabiting parents will engage in harsh parenting practices that might lead to abuse. In other words, many of the stressors and negative processes that have been found to occur in cohabiting homes parallel those that have also been found to increase the likelihood of both harsh parenting and physical maltreatment.

More recently researchers have gone beyond simple direct effects of family structure to child maltreatment. The following sections present literature on the relation between parenting, couple interactions, and child maltreatment across different family forms.

Stress, Parenting Processes and Child Maltreatment

Although two-parent first married families were once the norm, this is no longer the case as family structures have become extremely varied over the past three decades. The variations among family types have resulted from the increases in divorce, remarriages, age of first

marriage, and nonmarital child-bearing (Brown, 2004). More fragile family structures such as single-parent and cohabiting families increase the likelihood of the occurrence of abuse because they are more likely to possess specific stressors that negatively influence both family and couple processes (Brown, 2004). In other words, contact, conflict and general relationship quality have been illustrated to vary by family type, and increase the likelihood of maltreatment within certain structures (Barrett & Turner, 2005).

Two-Parent First Married. Most of the research about family structure and stress has found that two-parent first-married families possess significantly higher levels of warmth, openness and empathy than other family types (Lewis, 1986). Two-parent first married families have been found to have higher socioeconomic status, more resources, less conflict and more cohesion than other family structures (Barber & Lyons, 1994; Brown, 2004; Brown & Booth, 1996). For these reasons, the two-parent first married family structure has typically been considered to be the most ideal for reducing child maltreatment risk as well as increasing positive child-rearing outcomes (Biblarz, Raftery, & Bucur, 1997).

An assessment of the mental health of young adults raised in various family types found that those who originated from two-parent first-married homes showed fewer depressive symptoms than the young adults who originated from other structures (Barrett & Turner, 2005). Earlier assessments of well-being also found that children and adolescents from two-parent first married families, when compared to other youth, had fewer behavioral and emotional problems, more school attachment, higher self-esteem, and lower anxiety (Barber & Lyons, 1994; Brown, 2004).

The literature on family structure, stress, and child outcomes suggests that children from two-parent first married families may experience fewer contextual and economic stressors, greater levels of parental warmth, parental communication, and family cohesion than their peers residing in other family structures. As a result of these positive processes, parents in these families may be far less likely to adopt abusive parenting practices because both their tangible and intangible resources may buffer the negative effects of stressors they may experience.

Cohabiting Biological Parents. Cohabitation is a complex, yet increasingly popular, family form (Brown, 2004; Brown & Booth, 1996). Pre-marital cohabitation rates have increased drastically over the past few decades, predominantly because of the increase in age of first marriage. The increased divorced rate has also played a role in the influx of post-marital cohabitation (Brown, 2004; Brown & Booth, 1996). Although no known studies have examined the direct effects of cohabitation on child maltreatment, some research has examined how the stressors experienced by these families influences couple processes, parenting processes, and parenting practices. Using the 1987-1988 National Survey of Family and Households (NSFH) data set, Brown and Booth (1996) measured the relationship quality, the dimensions of happiness, disagreements, conflict management, interaction, and fairness among a sample of cohabitating and married couples. Results showed that cohabiting relationships were generally very similar to married relationships, but cohabiting partners tended to experience more disagreements, more fights, and poorer relationship quality. Higher stress levels were also observed among cohabiting couples. Although cohabiting relationships shared several similarities to married relationships, the greater stress and poorer relationship quality may not

provide the best environments to support child well-being (1996). This atmosphere may also increase the risk for abusive parenting practices.

A later study found that problem behaviors were more frequent for children in unmarried as opposed to married families (Ackerman, D' Eramo, Umylly, Schultz, & Izard, 2001). Boys in cohabiting homes were also found to be more likely to display externalizing behavior problems than girls (Ackerman et al., 2001). This study specifically assessed the relation between family type, environmental stress, quality of the caregiver relationship, and teacher reports of externalizing behaviors. Because unmarried families were found to have significantly lower income than married families, the authors speculated that economic pressure along with decreased caregiver relationship quality, and increased environmental adversity (that was assessed in cohabiting homes) contributed to the observed child maladjustment. In other words, poorer caregiver relationship quality increased caretaker stress, and this increased stress, compounded with other environmental adversities, more likely resulted in harsher parenting practices that led to abuse. Because these results parallel the interactions proposed in the Family Economic Stress Model (Conger & Elder, 1994), a linkage between the cohabiting family structure and physical maltreatment can be reasonably assumed.

More recently, Brown (2004) studied the differences between cohabiting biological and cohabiting stepfamilies and their relation to child well-being. The 1999 National Survey of America's Families (NSAF) data set was used to assess parent and child well-being among a sample of cohabiting families. Results indicated that youth in two-biological-parent cohabiting families had more behavioral and emotional problems, along with less school attachment

(compared to children from married families). Brown's results also revealed that the child outcomes for youth in any type of cohabiting home were similar to the outcomes of youth in single mother homes. Overall, these findings suggested that residing in a cohabiting family structure (either two-parent-biological or a cohabiting stepfamily) has negative implications for child well-being. The stressor of low economic resources may be associated with these outcomes, because the majority of cohabiting families are at or below the poverty line (Brown, 2004). This stressor is directly related to community context and may also influence the dynamics and processes that occur within these homes. Furthermore, Brown's extension of prior research was necessary in order to comprehend the dynamics and stressors that exist in the different types of cohabiting homes.

Single Mother Families. Much of the research about single-mother families has indicated that children in single mother homes experience multiple risk factors (such as low SES, negative family processes and maternal psychiatric disorders) (Lipman, Boyle, Dooley, & Offord, 2002). In one study, the Canadian National Longitudinal Survey of Children and Youth (NLSCY) data set was used to assess the relation between residing in a single-mother family and child functioning (Lipman et al., 2002). Results indicated that single-mother family status was a significant predictor of negative child functioning, because the children who resided in these homes had more psychiatric problems, greater social impairment, and lower math scores (Lipman et al., 2002). This association weakened when social demographics and personal variables were also considered. Also, children who resided in a single-mother home where there was hostile parenting were at an increased risk of developing psychiatric problems. Furthermore,

these findings suggest that the single-mother family status has negative implications for child functioning that are heightened when a family faces additional risk factors.

Because children in single-mother households are much more likely to live in poverty and high-risk neighborhood contexts (Lloyd & Rosman, 2005), these two specific stressors can interfere with normative development and increase child psychiatric problems (Lipman et al., 2002). The presence of such chronic stressors can also negatively influence family processes, how these families respond to additional stress, and increase their maltreatment risk as less resources are often available to them.

The previous literature exemplifies that family structure is indeed important to consider when assessing child outcomes, stress and maltreatment risk (Brown, 2004; Lipman et al., 2002), because increased stress and negative couple processes are more likely to exist in fragile family structures, and abuse is much more likely to occur in within these family types. This is primarily because cohabiting and single-parents often execute harsher and more punitive parenting tactics than parents within the two-parent first-married families (Brown, 2004; Giles-Sims et al., 1995). Because the Family Economic Stress Model (Conger & Elder, 1994) and Belsky's Expanded Ecological Theory (Belsky, 1980) illuminated the pathway from economic stress and contextual stressors to harsher parenting and abuse, a linkage between fragile family structures and physical maltreatment can once again be reasonably assumed. This is especially true because the past literature has reported that the parents within these family types usually possess fewer social, contextual, and economic stressors (Barber & Lyons, 2004; Brown & Booth, 1996). Overall, the background about these linkages is important to consider because stress tends to be the most

important mediator between family structure and physical abuse.

Couple Processes

Although no known studies have examined the direct effects between couple processes and child maltreatment, some literature has reported linkages between couple processes, stress, and harsh parenting. An assessment of relationship dynamics within differing family types found that mothers in cohabiting families reported more conflictual interactions with their partners than married mothers (Aronson & Huston, 2004). Their psychological adjustment, available resources, and overall home environment were also found to be more similar to that of single than married mothers (2004). Thus, children in cohabiting homes may have an increased risk of experiencing abuse, as the processes experienced by their parents have been identified to evoke stress and increase the likelihood of harsher and more punitive parenting practices.

Regardless, because the direct effects of couple processes and maltreatment have not been examined, the goal of this study is to fill in that gap in the literature. This relation is important to consider, because if couple processes differ among various family structures, these processes could be just as much as a contributing factor to the abuse in the home as the structure itself. Belsky's (1984) parenting process model illustrated how the three factors of (a) parental history and personality, (b) child characteristics, and (c) sources of parental stress and support, can cause parents to adopt parenting behaviors that result in child maltreatment (when one of the factors is maladjusted). The literature reviewed about family structure and child abuse, also makes it apparent that negative couple processes (that can lead to abuse) can exist in homes occupying any family structure.

Although past literature has confirmed the linkages between family structure, stress and abuse, the majority of the research has not examined the direct effects between couple processes and physical maltreatment. The Fragile Families data set allows me to examine the specific couple processes of contact, conflict, and general relationship quality. Literature about mother-father relationship quality along with general relationship quality will be analyzed to discuss the potentialities of couple processes emerging in particular structures. These constructs will be used to identify couple processes, because the questions used to assess them in the data set parallel my definition of this concept.

Research on family conflict and communication has revealed that negative communication patterns among married couples are indeed related to the poor relationship quality between them (Katz & Woodin, 2002). In a study that examined a (predominantly Caucasian) sample of 126 married families with preschool aged children, negative relationship quality between partners was positively associated with more conflict and less cohesion among families, in addition to less playfulness and more externalized behavior problems among children (Katz & Woodin, 2002). This suggests that negative couple processes *may* increase family stress, because some of the family stress literature has indicated that children in homes with decreased partner relationship quality exhibited more behavioral and emotional problems, lower self-esteem, and higher levels of anxiety (Barber & Lyons, 1994; Brown, 2004). A linkage between negative couple processes and stress is also assumed in Belsky's Expanded Ecological Theory which incorporated these processes as a distinct part of the etiology that increases family stress and leads to abuse (Belsky, 1984).

Furthermore, because stress and negative couple processes appear to be the mediating variables for negative child outcomes, an increased likelihood of maltreatment is assumed. Additionally, the different contexts for parenting provided by the various family structures may increase the likelihood for negative partner relationship quality to emerge. Because relationship quality is a measure of couple processes, the occurrence of abuse would indeed be more expected within certain family structures, as these structures would contain more negative couple processes.

Parental Characteristics

The age of the parents at the birth of a child is an important parental characteristic to consider, because research has suggested that young parents (especially mothers) possess a greater likelihood of engaging in physical maltreatment (Dubowitz, 2006; Lee & George, 1999). This is especially true when these parents live in neighborhoods with a higher concentration of poverty, originate from a lower socioeconomic status, maintain high stress levels, have negative family of origin relationship processes, and a history of abuse themselves (Lee & George, 1999; Morrow & Sorrell, 1989; Noll, Trickett, & Putnam, 2003; Thornberry, Ireland, & Smith, 2001). Because no one factor can indicate if a younger parent will become an abuse perpetrator, Lee and George (1999) hypothesized that a variety of contextual factors, coupled with immaturity, explains why these parents are more likely to be cited for abuse or neglect. This explanation closely paralleled Belsky's (1980) framework (about the etiology of child maltreatment) that combined Bronfenbrenner's ideas about ecological development and Tinbergen's consideration of parents' unique personalities and experiences.

Summary. In addition to the strong correlation found between family structure and physical maltreatment, a possible correlation has also been found to exist between couple processes and physical abuse (Katz & Woodin, 2002). The Family Economic Stress Theory best illustrates the pathway by which economic pressure increases negative couple processes, and the harsher parenting practices that often result in abuse (Conger & Elder, 1994). Because couple processes and abuse are mediated by interactions between the parent and child, Belsky's theoretical frameworks also allows the context of parent-child interactions to be analyzed when attempting to determine the potential causes of childhood physical abuse. This is especially true for his later developmental-ecological analysis of child maltreatment, where parent-child interaction was included as a distinct context of analysis (Belsky, 1993).

In summary, the literature that supports the linkage between couple processes, stress and harsh parenting raises the question of whether negative couple processes contribute to child maltreatment more than family structure. This question is necessary because so many studies have reported an increased likelihood of both negative couple processes and physical abuse in certain family types. Because negative couple processes do exist more in particular family structures, then family structure may not be as much of a contributing factor to the etiology of childhood physical abuse as previously believed. The processes that occur between the parents in abusive homes could contribute more to the abuse than originally realized; because some past studies have not found the correlation between physical maltreatment and family structure that many researchers adamantly argue exists.

CHAPTER FOUR

HYPOTHESES

Seven hypotheses are proposed for this study based on the previous theoretical and empirical literature about child physical abuse, couple processes, and family structure.

Hypothesis one. Economic pressure will be associated with family structure such that mothers from cohabiting and single-parent homes will report higher levels of economic pressure than mothers from two-parent first married families.

Hypothesis two. Economic pressure will be positively associated with harsher parenting practices at wave 3.

Hypothesis three. Family structure will be associated with harsher parenting practices such that mothers from cohabiting and single-parent homes will report harsher parenting practices at wave 3 than mothers from two-parent first married families.

Hypothesis four. Negative couple processes (couple conflict, contact, and relationship quality) will mediate the relation between economic pressure and harsh parenting practices.

Hypothesis five. Negative couple processes (conflict and poor relationship quality) will be associated with more harsh parenting practices.

Hypothesis six. Couple conflict will be positively associated with physical maltreatment at wave 3; couple contact and relationship quality will be negatively associated with physical maltreatment at year three.

Hypothesis seven. The association between family structure and harsh parenting, along with family structure and physical maltreatment will be moderated by couple processes such that

cohabiting couples will demonstrate more negative couple processes and harsher parenting than two-parent first married couples.

Hypotheses #1-6 Visual Model

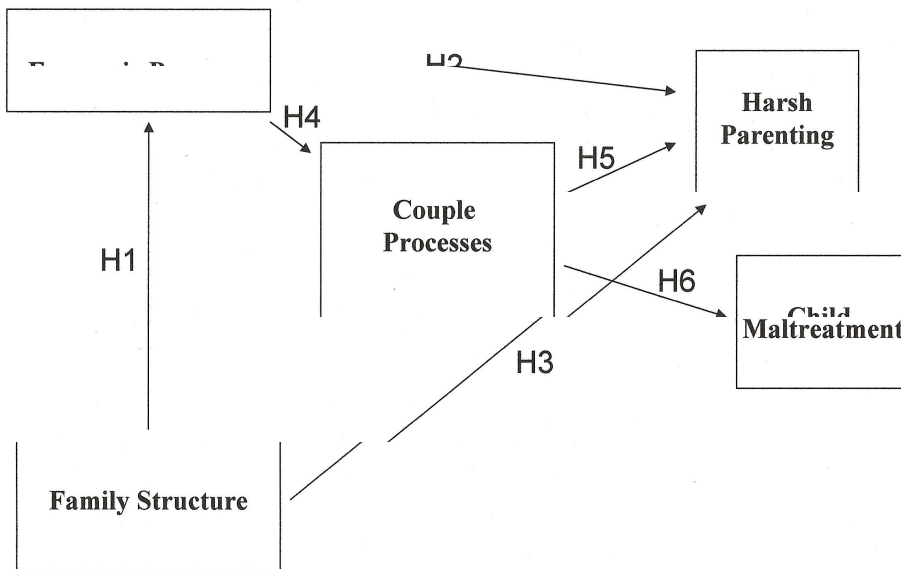


Figure 2: First Six Hypotheses

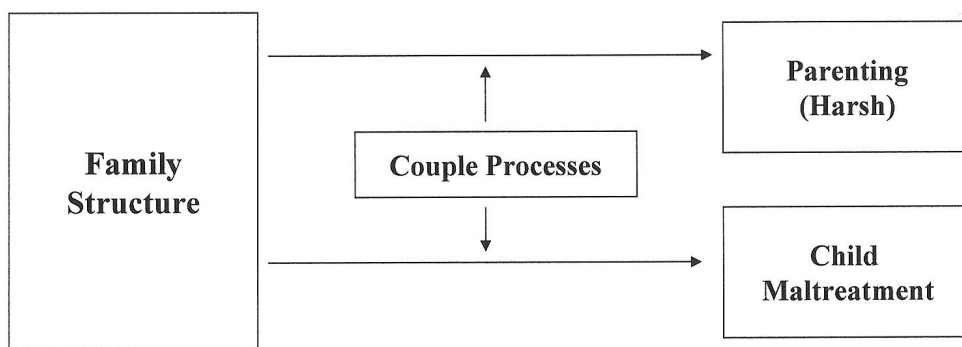


Figure 3: Seventh Hypothesis

CHAPTER FIVE

METHODS

Sample and Procedure

The Fragile Families and Child Well-being Study (FFCWB) followed a cohort of almost 5000 U.S families with children born between 1998 and 2000. The purpose of this study was to learn more about previously unavailable information such as the role of fathers, non-marital childbearing, and welfare reform, and their relation to overall child well-being. The sample was comprised of approximately 3700 unmarried couples, and 1,100 married families. Births to unmarried couples were purposely oversampled at a 3:1 rate because the researchers were especially interested in understanding how governmental policies and parental resources influence children born to low-income unmarried parents. The FFCWB cohort was selected from 75 hospitals in 20 cities and 15 states. The final sample was representative of unmarried births in seven urban cities. This study used a stratified random sample of U.S cities with a population of 200,000 or more. Stratification was based on the labor market and policy environment of the selected cities. Parental interviews occurred at birth, and again when the child was 12, 30 and 48 months old. In-home assessments were also completed at 30 and 48 months. For the baseline data, the response rate was 87% for mothers and 75% for fathers. The response rate for the 12-month interview was 90% for mothers and 70% for fathers (who participated at the baseline). This study used both a cross-sectional and longitudinal research design. A more comprehensive summary about the FFCWB sample was published by Reichman et al (2001).

The racial composition of this sample was 8% White, 69% Black, 19% Hispanic, and 4%

other ethnic minority. Also, 19% of parents were between the ages of 18 and 19 at baseline, 38% were between ages 20 through 24, 38% were older than 25, and only 5% were younger than 18. Eighty-seven percent of the participants were U.S born, 36% were first borns, and 59% obtained at least a high school diploma.

Study Sample

Baseline (W1), year one (W2), and year three (W3) are the three waves of data that I used in this study. Information provided by the mothers in 15 cities were solely used. These 15 cities included the greatest number of mothers who were surveyed with the same or parallel questionnaires, and therefore had the least missing data (n= 2035). The age of mothers ranged from 15-43, with a mean age of 25. Twenty-five percent of the mothers were married, 37% were cohabiting, and 38% were single parents (See Table 1). Also, the racial composition of this sample was 44% Black, 26% White, 26% Hispanic, and 4% other ethnic minority.

Half the mothers (52%) reported either having a high school diploma/GED or some college education. Thirty-six percent had less than a high school diploma, and only 12% had a bachelors or advanced degree. When asked about their total household income, 33% reported an annual gross household income of less than \$20,000, 18% ranged from \$20,000 to less than \$35,000, 20% ranged from \$35,000 to less than \$75,000, and only 8% reported an annual gross income of greater than \$75,000. The uncounted 21% is a result of the mothers' lack of knowledge about the gross annual household income, or refusal to answer the question. Both *don't know* and *refuse* were legitimate answers to the income question. Additionally, a

constructed poverty category variable revealed that 32% of the mothers were less than 100% of the poverty threshold, 26% ranged from 100% to below 200%, 16% ranged from 200% to below 300%, and 26% were at 300% or above the threshold. These descriptives indicate that almost a third of the sample reported being in extreme poverty during the baseline interview.

Table 1. *Summary of Descriptive Statistics for the Study Sample (N = 2035)*

Variable	Descriptive Statistics					
	%	N	Minimum	Maximum	Mean	Std. Deviation
Mothers age		2035	15	43	25	6.03
Mothers education		2035	-3	9	4.75	1.84
Mothers poverty level		2035	.00	12.30	2.37	2.48
Couple Processes						
Conflict		1631	1	5	2.87	.97
General relationship quality		1866	1	5	3.56	1.28
Economic pressure (W1)		2017	1	3	1.70	.70
Economic pressure (W2)		2035	.00	.82	.10	.14
Economic pressure (W3)		2035	.00	.90	.18	.16
Family Structure						
Married	25%					
Cohabiting	37%					
Single	38%					

CHAPTER SIX

MEASURES

Wave 1 (Baseline)

Economic Pressure. Economic pressure was measured at baseline and assessed with a single item: “At the end of the month, do you usually have...” 1 = *Some money left over* (44%), 2 = *Just enough to make ends meet* (41%), or 3 = *Not enough to make ends meet* (14%); (M = 1.70, SD = .70; See Table 1). One percent of the participants are unaccounted for as a result of missing data, lack of knowledge about the answer, or refusal to respond to the question.

Family Structure. Family structure dummy variables were created from three pre-constructed variables for married, cohabiting and single mothers, with married mothers as the comparison group. Twenty-five percent of participant mothers were married, and 37% were cohabiting at baseline (See Table 1). A single parent variable was created from a constructed variable (cm1relf) that indicated the mother’s relationship with the baby’s father. Mothers who were not married and not cohabiting were coded as single (1). Twenty-six of these mothers reported regular visits with the baby’s father, 6% reported that they were just friends with the baby’s father, 3% reported never talking to the baby’s father, and 0.6% reported that the baby’s father was unknown.

Parental Control Variables. Control variables were mothers’ age, level of education, and poverty level. The mothers were asked to provide their exact age, and to select the educational level that best described their situation at baseline. Education was dichotomized (1 = *Less than high school diploma*, 2 = *High school diploma or GED*, 3 = *Some college or technical school*,

and 4 = *Bachelors or advanced degree*; See Appendix) ($M = 4.75$, $SD = 1.84$; See Table 1). A single pre-constructed item that divided the mothers' annual household incomes by the poverty threshold was used to assess their poverty level ($M = 2.37$, $SD = 2.48$; See Table 1).

Wave 2 (Year One)

Economic Pressure. Economic pressure at Wave 2 (year one) was represented by the summed mean scores of twelve survey items that assessed if the mothers experienced various financial hardships in the previous year. These items asked questions such as “Did you receive free food or meals?; Were you evicted for not paying rent/mortgage?; Did you borrow money to help pay bills?; and Did you move in with other people because of financial difficulties?” (See Appendix). Item responses were separated into the two groups (1 = *Yes* and 2 = *No*) and were reverse coded so lower scores could represent lower economic strain. The scale items were then summed to compute one economic strain variable at wave 2 (scores ranged from .00 to .82; $M = .82$, $SD = .10$, $\alpha = .67$).

Couple Processes. Three separate items in the Wave 2 (year one) survey that tapped into the constructs of contact, conflict and general relationship quality were used to analyze couple processes that exist for married and cohabiting mothers, and those mothers who were single and had a relationship with the non-residential father. Mother-father contact was assessed by an item that asked all of the mothers how often they saw or talked to the father. Fifty-nine percent of the participants were unaccounted for because they skipped the question or refused to respond. The response category for this item was 1 = *Every day, or nearly every day*, 2 = *A few times a week*, 3 = *A few times a month*, 4 = *Only a few times in the past year*, 5 = *Hardly ever*, and 0 = *Never*.

The scores were reverse coded so that higher scores represented more frequent contact, and responses were summed to create a mean score ($M = 3.26$, $SD = 1.8$).

One item assessed mother-father conflict. Mothers were asked to identify how often she and the father argued about the things that were important to them. This item was only asked to mothers who were in a relationship with the father at the time of the year one interview, or who reported being in a relationship during the baseline interview. Nineteen percent of the participants were unaccounted for as a result of missing data, lack of knowledge about the answer, or refusal to respond to the question. The response category was 1 = *Always*, 2 = *Often*, 3 = *Sometimes*, 4 = *Rarely*, and 5 = *Never*. These scores were also reverse coded so that higher scores represented more frequent conflict; and responses were summed to create a mean score ($M = 2.87$, $SD = .97$; See Table 1).

Finally, the item that assessed general relationship quality asked the mothers to rate the quality of their relationship with the father of their baby. This item was also only asked to mothers who reported being in a relationship at the time of the baseline or year one interviews. Eight percent of the participants were unaccounted for because they skipped the question or refused to respond. The response category was another likert-type scale that ranged from 1-5. More specifically, 1 = *Excellent*, 2 = *Very good*, 3 = *Good*, 4 = *Fair*, and 5 = *Poor*. These scores were reverse coded; and responses were summed to create a mean score ($M = 3.56$, $SD = 1.28$; See Table 1).

Wave 3 (Year Three)

Economic Pressure. Economic pressure at Wave 3 (year three) was represented by the summed mean scores of ten survey items that assessed if the mothers experienced various financial hardships in the previous year because of lack of money. These items asked questions such as “Did you not pay the full amount of rent/mortgage?; Did you stay in a shelter for even one night?; Did someone in the household sacrifice medical care because of the cost?; and Have you worked overtime or taken a second job?” See Appendix. Item responses were separated into the two groups of 1 = *Yes* and 2 = *No*; and were reversed so lower scores could represent lower economic strain. The items were then summed to compute one economic strain variable at wave 3 (scores ranged from .00 to .90; $M = .18$, $SD = .16$, $\alpha = .63$).

In-Home Assessment

Harsh Parenting. Harsh parenting was measured by the five item psychological aggression subscale from the Parent-Child Conflict Tactics Scale (CTSPC) (Kaufman Kantor and Jasinski, 1997). These items were included in the Wave 3 in-home assessment survey. See Appendix. The intent of the psychological aggression subscale is to measure verbal communications that are designed to invoke psychological fear among a child (Kaufman Kantor and Jasinski, 1997). I conceptualized the identified behaviors as harsh parenting because of the age of the child when the survey was administered. Because the child was only three when the questionnaire was administered, a higher occurrence of the assessed behaviors would be considered harsh for such a young child.

The items specifically asked the mothers to identify their frequency of yelling, swearing, threatening, and calling the child dumb or lazy within the past year. Twenty-one percent of the participants were unaccounted for because of their refusal to respond to the questions. The response categories for these items was 0 = *This has never happened before*, 1 = *Once*, 2 = *Twice*, 3 = *3-5 times*, 4 = *6-10 times*, 5 = *11-20 times*, 6 = *More than 20 times*, 7 = *Yes, but not in the past year*. The item response 7 was recoded to = 0, representing that the behavior had not occurred in the past year and the items were then computed into one variable by following the instructions provided by Straus (2001) for measuring chronicity scores; responses were weighted by using the mid score for each response (e.g., 3 was recoded to = 4 times, 4 = 8 times) and summed (scores ranged from .00 to 115.00; $M = 23.74$, $SD = 79.50$; $\alpha = .50$). The conceptual framework for chronicity is further described by Straus, Hamby, Finkelhor, Moore and Runyan (1998).

Child Maltreatment. Physical maltreatment was also measured by five items from the minor physical assault CTSPC subscale (Kaufman Kantor and Jasinski, 1997). See Appendix. The intent of the minor physical assault subscale is to measure less severe forms of corporal punishment (Kaufman Kantor and Jasinski, 1997). The items specifically asked the mothers to identify their frequency of hitting, shaking, spanking, slapping and pinching the child within the past year. Twenty-one percent of the participants were unaccounted for because of their refusal to respond to the questions. Identical to the psychological aggression subscale, the response categories for these items was 0 = *This has never happened before* 1 = *Once*, 2 = *Twice*, 3 = *3-5 times*, 4 = *6-10 times*, 5 = *11-20 times*, 6 = *More than 20 times*, 7 = *Yes, but not in the past year*.

The item responses were recoded as described for harsh parenting; the items were then computed into one variable by following the instructions provided by Straus (2001) for measuring chronicity scores (scores ranged from .00 to 90.00; $M = 15.21$, $SD = 17.83$; $\alpha = .59$).

CHAPTER SEVEN

ANALYSES AND RESULTS

Hypothesis Testing: One

To test hypothesis one, that family structure would be associated with economic pressure, an analysis of variance (ANOVA) was run for economic pressure x family type to determine if the level of economic pressure differed significantly across the three family types. The analysis of variance supported this hypothesis, and showed mean score differences in economic pressure across family types and across waves. At wave 1-baseline, married mothers reported lower levels of economic pressure, $F(2, 2524) = 102.05, p = .000, (M = 1.39, SD = .57)$ than did mothers from cohabiting or single parent homes. The economic pressure mean score for the mothers in cohabiting relationships was $M = 1.69, SD = .67$, and the economic pressure mean score for single mothers was $M = 1.89, SD = .75$. A Tukey follow-up revealed that each group was statistically significant from the other; cohabiting mothers reported higher levels of economic pressure than single mothers.

At wave 2-year one, married mothers also reported lower levels of economic pressure, $F(2, 2552) = 29.42, p = .000, (M = 0.06, SD = .11)$ than did mothers from cohabiting or single parent homes. The economic pressure mean score for the mothers in cohabiting relationships was: $M = 0.10, SD = .14$, and the economic pressure mean score for single mothers was $M = 0.10, SD = .14$. A Tukey follow-up revealed no statistical significance between cohabiting and single mothers.

At wave 3-year three, married mothers continued to report lower levels of economic pressure, $F(2, 2549) = 43.75, p = .000, (M = 0.12, SD = .14)$ than did mothers from cohabiting or single parent homes. The economic pressure mean score for the mothers in cohabiting relationships was: $M = 0.19, SD = .17$, and the economic pressure mean score for single mothers was $M = 0.19, SD = .16$. A Tukey follow-up revealed that there was no statistical significance between cohabiting and single mothers.

Hypothesis Testing: Two-Seven

To test the proposed hypotheses, two multivariate regressions were run. First, harsh parenting (assessed at year 3) was regressed on economic pressure, family structure, and couple processes, controlling for mothers' age, education, and poverty level. Variables were entered in four blocks. Control variables, mothers' age, education, and poverty level were entered in block one. The dummy-coded family structure variable (at baseline), and economic pressure from years one, two and three were entered in block two. The three couple process items (contact, conflict and general relationship quality), assessed when the baby was one year old, were entered in the third block. The fourth and final block tested hypothesis seven by entering six interaction terms for family structure x couple processes (cohabiting x contact, cohabiting x conflict, cohabiting x general relationship quality, single x contact, single x conflict, single x general relationship quality). This regression was then repeated for the child maltreatment outcome (which was assessed at year three).

The first multivariate regression showed age to be the only significant control variable associated with harsher parenting. Younger mothers were more likely than older mothers to

report engaging in harsher parenting practices (see Table 2). Economic pressure across waves was not associated with harsher parenting practices at wave three. Cohabiting or single mother statuses were also not significant. Couple processes (couple contact and general relationship quality) were not associated with harsh parenting practices. However, the multivariate regression found that couple conflict was associated with harsher parenting practices. Mothers who reported higher conflict with the baby's father reported harsher parenting (see Table 2).

Physical maltreatment was also positively associated with conflict with the baby's father (see Table 3); however, couple contact and general relationship quality were not associated with physical maltreatment. The multivariate regression for physical maltreatment also revealed economic pressure at year three to be associated with physical maltreatment. Mothers who experienced higher economic strain at year three were more likely to report engaging in physical maltreatment than those who experienced less strain (see Table 3).

Significant interactions were observed in both regression analyses for family type x couple contact (See Table 2; Table 3). These results are somewhat suspect, however because the contact measure had a large number of missing cases (59%). Although it was not specified in the Fragile Families documentation, crosstabs of contact by family type suggested that married couples may not have been asked the question about contact with a spouse. Thus, these significant interactions may represent a false result. For this reason, follow up analyses were not conducted.

The regression analyses, which were run with listwise deletion, resulted in a large drop of cases ($n = 590$ and 591). To examine if the large number of missing cases in the contact measure

influenced the regression results, post-hoc regression analyses were repeated without the couple contact variable and the couple contact interaction terms. These post-hoc analyses included 1614 cases however the results generally remained the same. The only observed difference was that mothers education level became significant for the physical maltreatment outcome ($B = .08, p = .01$). These similarities lend confidence in the results despite the drop in cases, because the removal of the couple contact variable and the couple contact interaction terms did not cause any notable changes among the regression results.

Table 1. Summary of Multivariate Regression Analysis for Variables Predicting Harsh Parenting
(*N* = 591), Controlling for Age, Education and Poverty Level

Variable	Model 1		Model 2		Model 3		Model 4	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
Mothers age	-0.11*	0.16	-0.12**	0.16	-0.12**	0.16	-0.12**	0.16
Mothers education	0.01	0.62	0.01	0.63	0.00	0.63	0.01	0.63
Mothers poverty level	0.01	0.62	-0.00	0.63	-0.01	0.63	-0.01	0.63
Family Structure								
Cohabiting			-0.05	3.98	-0.06	3.97	0.05	15.32
Single			-0.09	3.89	-0.09	3.88	0.15	14.69
Economic pressure (W1)			0.02	1.21	0.02	1.21	0.02	1.21
Economic pressure (W2)			0.06	6.3	0.06	6.32	0.06	6.29
Economic pressure (W3)			0.76	5.78	0.07	5.78	0.07	5.78
Couple Processes								
Contact					0.08	0.63	-0.42	2.86
Conflict					0.11*	0.71	0.49	3.61
General relationship quality					-0.02	0.79	0.26	4.09
Significant Interactions								
Cohabiting X contact							0.72*	3.05
Single X contact							0.68*	2.96
<i>R</i> ²	0.01		0.03		0.5		0.6	
<i>F</i>	2.27		2.11*		2.49**		2.23**	
<i>df</i>	3		8		11		17	

p* < .05. *p* < .01. ****p* < .001.

Table 2. Summary of Multivariate Regression Analysis for Variables Predicting Physical

Maltreatment (N = 590), Controlling for Age, Education and Poverty Level

Variable	Model 1		Model 2		Model 3		Model 4	
	B	SE	B	SE	B	SE	B	SE
Mothers age	-.16***	0.15	-.17***	0.15	-.17***	0.15	-.17***	0.15
Mothers education	0.07	0.58	0.06	0.58	0.06	0.58	0.07	0.58
Mothers poverty level	0.07	0.58	0.06	0.59	0.05	0.59	0.05	0.59
Family Structure								
Cohabiting			-0.05	3.7	-0.05	3.68	-0.14	14.25
Single			-0.05	3.62	-0.04	3.6	0.03	13.66
Economic pressure (W1)			-0.01	1.13	-0.01	1.12	-0.01	1.12
Economic pressure (W2)			0.07	5.87	0.06	5.86	0.06	5.86
Economic pressure (W3)			0.11*	5.38	0.11*	5.36	0.11*	5.38
Couple Processes								
Contact					0.03	0.58	-0.48	2.66
Conflict					.15***	0.66	0.37	3.36
General relationship quality					0.02	0.73	0.35	3.8
Significant Interactions								
Cohabiting X contact							0.72*	2.84
Single X contact							0.68*	2.75
R ²	0.04		0.06		0.08		0.09	
F	7.1***		4.41***		4.56***		3.37***	
df	3		8		11		17	

*p < .05. **p < .01. ***p < .001.

CHAPTER EIGHT

DISCUSSION

The purpose of this study was to examine the relations among physical maltreatment, economic pressure, couple processes, family structure and harsh parenting. Several hypotheses surrounding the relations and interactions between the variables of interest were made based on Belsky's Expanded Ecological Theory, the Family Economic Stress Model and my combined theoretical ideas. Associations between economic pressure and family structure along with economic pressure and harsh parenting were expected based on the findings from previous research (Barber & Lyons, 1994; Brown, 2004; Brown & Booth, 1996; Egan & Carpenter, 1999; Gelles, 1989; Giles-Sims et al., 1995; Martin & Walters, 1982; Sack et al., 1985). Associations between family structure and harsh parenting along with family structure and physical maltreatment were also expected based on the findings from previous research (Egan & Carpenter, 1999; Gelles, 1989; Giles-Sims et al., 1995; Manning & Brown, 2006; Martin & Walters, 1982; Oliver et al., 2006; Sack et al., 1985; Thomas & Sawhill, 2005). The associations expected between negative couple processes and harsh parenting and negative couple processes and physical maltreatment were mainly hypothesized from my combined theoretical framework (See Figure 1). Because couple processes occur in Belsky's (1980) microsystem, the economic pressure from the macrosystem was expected to increase the likelihood of harsh parenting and physical abuse. The low-income status of many of the families who participated in this study also contributed to the expected findings.

Hypothesis one. Economic pressure will be associated with family structure such that mothers from cohabiting and single-parent homes will report higher levels of economic pressure than mothers from two-parent first married families.

The analyses of variance revealed that mothers from cohabiting and single-parent homes did indeed report higher levels of economic pressure than married mothers across waves. At baseline, each of these groups were statistically significant from one another. At year one and year three, married mothers were significantly less strained than cohabiting or single mothers. Results are consistent with earlier research. Married families are more likely to experience higher socioeconomic statuses and more financial resources than other family structures (Barber & Lyons, 1994; Brown, 2004; Brown & Booth, 1996). The stability often provided by a marriage relationship is the potential reason for this. Several studies have demonstrated the increased financial stability of married families, along with the financial instability among cohabiting and single-parent families (Barber & Lyons, 1994; Brown, 2004; Brown & Booth, 1996). For this reason, it was not surprising that married mothers reported lower levels of economic pressure than cohabiting and single mothers.

Hypothesis two. Economic pressure will be positively associated with harsher parenting practices at wave 3.

Contrary to expectation, the multivariate regression revealed that economic pressure (across waves) was not associated with harsher parenting practices at year three. Economic pressure was expected to be associated with harsher parenting practices, because much of the abuse literature has found economic pressure to predict both harsh parenting and physical abuse

(Egan & Carpenter, 1999; Gelles, 1989; Giles-Sims et al., 1995; Martin & Walters, 1982; Sack et al., 1985). This hypothesis was also derived from the Family Economic Stress Model by Conger and Elder (1994); early versions of the model theorized that economic pressure increases parental depression and harsh parenting while decreasing couple relationship quality and support (Conger & Elder, 1994). Because the entire sample was derived from a low-income population, it is possible that there was little variation for economic pressure across waves, and thus the degree of strain was not wide. This may be especially true since chronic economic pressure is less of a risk factor for family well-being than acute economic pressure at one point in time (Conger & Elder, 1994). This is primarily because families who experience economic pressure for longer periods of time are more likely to develop coping mechanisms that help buffer against many of the negative effects of financial strain (Conger & Elder, 1994).

The multivariate regression found economic pressure at year three to be associated with physical maltreatment. Mothers who experienced economic strain at year three were more likely to report engaging in physical maltreatment. This was not surprising because much of the abuse literature has identified financial strain and pressure (during the time of measurement) as significant risk factors for abuse and neglect (Egan & Carpenter, 1999; Gelles, 1989; Giles-Sims et al., 1995; Manning & Brown, 2006; Martin & Walters, 1982; Oliver et al., 2006; Sack et al., 1985; Thomas & Sawhill, 2005). To some extent, the association found between economic pressure at year three and physical maltreatment confirms potential bias for the hypothesis two results (of no association between economic pressure and harsher parenting), because the same studies have linked harsh parenting to physical maltreatment. Although the multivariate

regression did not find economic pressure (across waves) to be associated with harsher parenting practices, the relation between harsh parenting and physical maltreatment (Egan & Carpenter, 1999; Gelles, 1989; Giles-Sims et al., 1995; Manning & Brown, 2006; Martin & Walters, 1982; Oliver et al., 2006; Sack et al., 1985; Thomas & Sawhill, 2005) suggests a possible measurement error among economic pressure across waves.

In other words, an expansion of the economic pressure measures might have yielded different results. If the economic pressure measures analyzed at baseline, year one, and year three did not adequately tap into this construct, then the findings for hypothesis two may not be accurate. The families might have experienced more economic pressure (across waves) than what was measured. This may be especially true at baseline, because only one item was used to assess economic pressure. The use of a scale to measure economic pressure at baseline would have allowed various aspects of economic pressure to be captured, and would have better reflected this construct. The use of a scale to measure economic pressure at baseline may have also yielded different results, because scales sum the responses of multiple items. As a result, their score responses maintain a much greater variance than the score responses from a single item. This is primarily because multi-item measures ask several questions to measure the same construct, and the final composite score is based on all of these questions instead of just one. Also, if the economic pressure scales at year one and three did not measure economic pressure as accurately as intended, then some aspects of the families' experiences with financial strain might not have been captured. The use of additional items to measure economic pressure at year one and year three might have also yielded greater support for this hypothesis, because even more

characteristics of this construct would have been tapped into.

Hypothesis three. Family structure will be associated with harsher parenting practices such that mothers from cohabiting and single-parent homes will report harsher parenting practices at wave 3 than mothers from two-parent first married families.

Contrary to expectation, family structure (measured at baseline) was not associated with harsher parenting practices at year three. Mothers who indicated that they were cohabiting or single were expected to report harsher parenting practices, because most of the abuse literature has also found family structure to predict both harsh parenting and physical maltreatment (Egan & Carpenter, 1999; Gelles, 1989; Giles-Sims et al., 1995; Manning & Brown, 2006; Martin & Walters, 1982; Oliver et al., 2006; Sack et al., 1985; Thomas & Sawhill, 2005). This hypothesis was derived from Belsky's Expanded Ecological Theory because of its focus on the family setting in which harsh parenting and maltreatment occurs. Because cohabiting and single-mother homes experience more economic and social pressures than married families (Brown, 2004; Brown & Booth, 1996), Belsky's theory suggests that these stressors increase the likelihood of harsh parenting. This hypothesis was also derived from Conger and Elder's (1994) Family Economic Stress Model, because of its proposed linkages between economic pressure, parental distress and harsh parenting. It is plausible that this hypothesis was not supported because measuring family structure at baseline might not be a sufficient predictor of harsh parenting at year three. In other words, measuring both family structure and harsh parenting at year three might have yielded stronger support for this hypothesis. This is primarily because the stressors

and processes associated with a family's structure would be current and applicable when measuring the harsh parenting outcome. The stressors and processes associated with the families' structures at baseline may not have predicted harsh parenting three years later because their family dynamics might have changed since the initial time of measurement. Most of the past research that has found a relation between family structure and harsh parenting was cross-sectional and measured family structure at the same time point as the harsh parenting outcome (Egan & Carpenter, 1999; Gelles, 1989; Manning & Brown, 2006; Martin & Walters, 1982; Oliver et al., 2006; Sack et al., 1985).

Hypothesis four. Negative couple processes (couple conflict, contact, and relationship quality) will mediate the relation between economic pressure and harsh parenting practices.

This hypothesis was not supported. Negative couple processes (couple contact, conflict, and relationship quality) were expected to mediate the relation between economic pressure and harsh parenting, but economic pressure was not related to harsh parenting. This hypothesis was mainly derived from my combined theoretical framework (See Figure 1). Because couple processes occur in Belsky's (1980) microsystem, the economic pressure from the macrosystem was expected to increase the likelihood of harsh parenting in the microsystem (See Figure 1). Also, because Aronson and Huston's (2004) assessment of relationship dynamics found some relation between couple processes, economic stress and harsh parenting, the aim of the present study was to further explore these associations. It is plausible that this hypothesis was not supported because the analyzed economic pressure measures did not tap into the construct of

economic pressure as intended. The economic pressure item at baseline, and measures at years one and three might not have measured this construct as adequately as assumed.

It is also plausible that the couple contact and general relationship quality items did not tap into the construct of couple processes as intended. The frequency of contact between a mother and father, along with a mother's rating of her relationship quality, might not be sufficient to scrutinize when attempting to analyze a couple's relationship dynamics. Couple contact may not really be a couple process, and if it is it might be a less important dimension of this construct. General relationship quality may also not be an important enough dimension of couple processes to analyze a couple's relationship dynamics. Other elements such as trust, closeness, and relationship satisfaction may tap into couple processes more accurately (Aronson & Huston, 2004). The use of single items to measure couple processes, rather than scales, may have also biased these results. The use of multiple items to measure couple processes would have allowed more dimensions of couple processes to be captured, and would have better reflected this construct. The use of a scale may have also yielded different findings, because the score responses from scales maintain much greater variance than the score responses from single items. In other words, an expanded measurement of both economic pressure and couple processes might have yielded some support for this hypothesis. The limited measures used to analyze these constructs interfered with my ability to capture all dimensions of them. For this reason, further exploration of a mediating relation between economic pressure, negative couple processes and harsh parenting is recommended.

Hypothesis five. Negative couple processes (conflict and poor relationship quality) will be associated with more harsh parenting practices.

Hypothesis five was partially supported. Increased couple conflict and poor relationship quality were expected to be associated with harsh parenting practices (Aronson & Huston, 2004). As expected, higher couple conflict at year one predicted harsh parenting practices among mothers at year three. However, poor relationship quality did not predict harsh parenting. The couple conflict finding was not surprising because a handful of studies have found mother-father conflict to interfere with various aspects of family dynamics such as father involvement (Sano, 2005), family functioning (Katz & Woodin, 2002), and overall child well-being (Harper & Fine, 2006). The general relationship quality finding was surprising, because negative relationship quality has also been found to interfere with family dynamics and functioning (Ackerman, Brown, D'Eramo, & Izard, 2002; Katz & Woodin, 2002). In other words, both couple conflict and poor relationship quality were expected to be associated with harsh parenting, but this study only found this to be true for conflict and not relationship quality.

This hypothesis was also derived from my combined theoretical framework. Because couple processes occur in Belsky's (1980) microsystem, negative couple processes were expected to increase the likelihood of harsh parenting by the influence of the macrosystem and ontogenesis (See Figure 1). The macrosystem encompassed the economic stress and pressure that is experienced by a family, and the ontogenesis included the parents' individual backgrounds and experiences. Similar to Bronfenbrenner's Model of Ecological Development, the broader macrocontexts are expected to influence the microcontext. Even though all of the negative

couple processes were not associated with harsh parenting, the association found between couple conflict and harsh parenting suggests that couple processes and harsh parenting do indeed possess some relation. For this reason, it can be presumed that an expanded measurement of couple processes might have yielded stronger support for this hypothesis. It can also be presumed that the measurement of other elements such as trust, closeness, and relationship satisfaction might have tapped into the construct of couple processes more accurately.

Hypothesis six. Couple conflict will be positively associated with physical maltreatment at wave 3; couple contact and relationship quality will be negatively associated with physical maltreatment at year three.

Hypothesis six was partially supported. Higher couple conflict at year one was expected to be associated with physical maltreatment at year three, and lower couple contact and relationship quality was expected to be associated with physical maltreatment. As expected, higher couple conflict at year one predicted physical maltreatment at year three. However, couple contact and relationship quality were not associated with physical maltreatment. Because negative couple processes were presumed to increase the likelihood of physical maltreatment, it is surprising that couple conflict was the only couple processes item found to be associated with this type of abuse. An expanded measurement of couple processes might have yielded stronger support for this hypothesis. It is plausible that the couple contact and general relationship quality items did not tap into the construct of couple processes as intended. Once again, the measurement of other elements such as trust, closeness, and relationship satisfaction might have tapped into the construct of couple processes more accurately. The use of items rather than scales

might have also biased these results. Further exploration of this hypothesis with an expanded measurement of couple processes is recommended, because these results indicate that couple processes are indeed somewhat associated with physical maltreatment.

Hypothesis seven. The association between family structure and harsh parenting, along with family structure and physical maltreatment will be moderated by couple processes such that cohabiting couples will demonstrate more negative couple processes and harsher parenting than two-parent first married couples.

Hypothesis seven was not tested because of lack of confidence in the regression interactions. Although significant interactions were observed in both regression analyses for family type x couple contact (See Table 2; Table 3), the large number of missing cases (59%) for the couple contact item made the significance of these interactions somewhat doubtful. More specifically, although the cohabiting x couple contact and single x couple contact interactions were significant, this significance likely had little meaning because of the large number of missing cases for the contact item.

Additional Findings

In both multivariate regressions, mothers' age was a significant predictor of harsh parenting and physical maltreatment. Younger mothers were more likely to report engaging in harsher parenting practices or physical maltreatment at year three than older mothers. Prior research has supported this finding, and young maternal age has been repeatedly identified as a risk factor for harsh parenting and abuse in quite a few studies (Dubowitz, 2006; Lee & George, 1999; Morrow & Sorrell, 1989; Noll et al., 2003; Thornberry et al., 2001). The studies that have

identified young maternal age as a significant predictor of harsh parenting and physical maltreatment have also concluded that age coupled with living in poverty, external high external stress, negative family of origin processes, and a history of abuse themselves are what increase the likelihood of young mothers engaging in such behaviors (Dubowitz, 2006; Lee & George, 1999; Morrow & Sorrell, 1989; Noll et al., 2003; Thornberry et al., 2001). Because the Fragile Families dataset was intended to represent low-income populations that have experienced such stressors, it is presumed that many of the young mothers in this sample experienced a variety of external factors that contributed to these results.

CHAPTER NINE

LIMITATIONS AND STRENGTHS

Research that utilizes pre-existing datasets are not exempt from limitations. The likelihood of social desirability bias when the mothers were asked the harsh parenting and physical maltreatment questions is a primary limitation of this study. Even though the items from these scales were cloaked under a broad parental discipline measure, the sensitive nature of many of the questions may have caused some mothers to underreport their frequency of engaging in the identified behavior. Social desirability bias might have also been a problem when the mothers were asked the general relationship quality question. Because this item asked the mothers to rate their relationship quality with the father, the sensitive nature of this question may have caused some mothers to report a higher quality relationship with the baby's father than what they actual experienced. For this reason, it is possible that the findings in this study are somewhat biased. In other words, more mothers may have been dissatisfied with their relationship with the baby's father than was reported.

Data for 21% of participants was missing for both the harsh parenting and physical maltreatment scales. These missing data may have interfered with the result because the mothers who refused to respond to the questions might have engaged in more of the identified behaviors than those who did respond. This theory has been supported by McCarroll et al. (2000) who found that participants who refuse to respond to one or more items on the CTS psychological aggression or physical assault subscales are likely to have engaged in the identified behaviors, but chose not to report it. For this reason, it can be assumed that the findings for harsh parenting

and physical maltreatment were somewhat biased, because more mothers likely engaged in harsher parenting and physical maltreatment at year three than were measured. If this is true, then it can be assumed that the proposed hypotheses would have been more strongly supported if the missing mothers choose to respond. Also, because the outcomes were CTS subscales at year three, all participants who did not answer the psychological aggression or physical assault questions were dropped from the multivariate regression. Because McCarroll et al. (2000) also found that excluding this missing data can bias findings, dropping these cases increased the likelihood of inaccurate results.

Data for 59% of participants was missing for the couple contact item. This is an additional study limitation. This is also true for the 19% of participants who were missing for the couple conflict item. The couple contact item is also a concern because it likely invalidates the regression interaction findings of hypothesis seven. The cohabiting x contact and the single x contact interactions at year one were found to be significantly associated with harsher parenting practices and physical maltreatment at year three. Because such a small number of cases were analyzed, it is unclear if this finding is legitimate. Although the unaccounted for participants for the couple conflict item was for a range of reasons (missing data, lack of knowledge about the answer, or refusal to respond to the question), the reasoning for such a high percentage of missing data for the couple contact item (59%) was not made clear in any of the Fragile Families documentation. This should be further investigated in any expansions to this study.

Because the findings surrounding economic pressure and couple processes were not consistent with research and theory, an expanded measurement of both of these constructs would

serve as a beneficial extension to this study. It is plausible that the selected items did not tap into the constructs of economic pressure and couple processes as intended. Elements other than contact, conflict and general relationship quality might serve as better measurements of couple processes. Trust, closeness, and relationship satisfaction might have tapped into couple processes and relationship dynamics more accurately. Also, the economic pressure measures might not have assessed economic pressure as adequately as intended. The baseline item may not have been sufficient to really assess economic pressure at that time point, and the economic pressure scales at year one and three might have also missed some important elements of economic pressure. In other words, this is a limitation because some important components of both economic pressure and couple processes might not have been measured.

Finally, the use of multivariate regressions caused the selected sample to drop from 2035 to an approximate 590 cases over the three years. The analysis dropped any participants who had missing information for any of the selected items or measures. However, the extreme drop in cases was largely based on the participants who chose not to respond to the CTS subscales or couple contact item. Efforts were taken to minimize missing data in the other items and measures. This greatly limited the external validity of these findings among other low-income populations, because the mothers who chose to answer all of the CTS items likely engaged in less harsh parenting and physical maltreatment than the mothers who chose not to answer (McCarroll et al., 2000). In other words, these results may not be informative about all low-income mothers who engage in harsh parenting or physical abuse. Also, because married mothers may not have answered the couple contact item, it is likely that these mothers were not

included in the final sample (n = 590). If this is so, then the results may only be applicable to cohabiting and single mothers.

In contrast, the primary strength of this study is that the data were derived from a nationally representative longitudinal dataset. The cities, hospitals, and births were strategically selected to represent both marital and non-marital low-income births in U.S cities with populations over 200,000 (Reichman et al., 2001). No other known dataset has been acquired in such a strategic manner to represent these groups. Unfortunately, I was not able to apply weights for the current study because of my limited knowledge about using the required statistical program. The inability to administer the recommended weights also limited the ability to generalize results to all low-income families in the U.S.

The longitudinal nature of this dataset was especially beneficial, because it allowed the identified variables to be measured among the selected sample from the child's birth to third year of life. This is a strength of this study, because it strongly suggests that the associations that were found are not specific to one point in time and/or a cohort effect. The relations that were found among economic pressure and family structure, economic pressure and physical maltreatment, couple conflict, harsh parenting, and physical maltreatment, along with maternal age, harsh parenting, and physical maltreatment are likely legitimate associations. Empirical and theoretical support legitimizes these associations, even though some of the findings specific to this study might have been biased. In other words, the breadth of information acquired by the various measures provide a starting point to understanding how low SES and diverse family forms interact with and influence mother-father relationships and parenting practices over time.

CHAPTER TEN

CONCLUSION AND FUTURE DIRECTIONS

The most apparent conclusion that can be drawn from this study is that various associations exist between physical maltreatment, economic pressure, couple processes, family structure and harsh parenting. First, economic pressure was found to be associated with family structure in a way that confirms previous claims about the increased economic stability of married families (Barber & Lyons, 1994; Brown, 2004; Brown & Booth, 1996). Second, because higher couple conflict was found to predict harsh parenting and physical maltreatment, this suggests that couple processes may indeed play some role in the etiology of abuse among families that experience various stressors. This is primarily because increased couple conflict can increase the likelihood of harsh parenting. The associations between negative couple processes, harsh parenting and physical maltreatment were supported by my combined theoretical framework that incorporated the ideas from Bronfenbrenner, Belsky, and Conger and Elder. (See Figure 1). Third, the association found between economic pressure (during year three) and physical maltreatment confirms the negative impact that higher financial strain can have on family dynamics. This association also suggests that economic pressure at the time of measurement is more indicative of physical maltreatment than chronic strain. Finally, the associations between maternal age, harsh parenting and physical maltreatment increases the awareness of the risks associated with young motherhood.

Further research should be done to continue to explore specific couple processes in diverse family forms. Expanding this study and addressing its limitations would be a good way

to attain a greater understanding about the associations between physical maltreatment, economic pressure, couple processes, family structure and harsh parenting. Because some of this study's findings replicated past research about these topics, this has implications for the social service providers that intervene in physically abusive homes. If counseling providers know to additionally focus on restructuring a couple's processes, this may help produce a protective factor that can discourage future maltreatment. In sum, the goal of this study was worthwhile as its results yielded implications for social service policy. Increasing the collaboration between child protective services (CPS) and domestic violence agencies might be needed, because couple processes do have some relation to both harsh parenting and physical maltreatment.

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APPENDIX
Fragile Families and Child Well-Being Items/Measures

Baseline

Income/Economic Pressure

Poverty ratio: A variable for mother's household income/poverty threshold was pre-constructed.

J4. How much money does the mother usually have at the end of the month?

1 = *Some money left over*, 2 = *Just enough to make ends meet*, or 3 = *Not enough to make ends meet*

Family Structure

Married. A variable to identify married mothers was pre-constructed.

Cohabiting: A variable to identify cohabiting mothers was pre-constructed.

Single: A variable to identify cohabiting mothers was pre-constructed.

Control Variables

Age: A variable for mother's age at baseline was pre-constructed.

I1. What is your highest level of education?

1-----2-----3-----4-----5
None Less than 8th grade Some high school High school diploma G.E.D
6-----7-----8-----9
Some college or 2-yr degree Technical or trade school Bachelor's Degree Grad/Professional School

Wave 1 (Year One)

Economic Pressure

H19. In the past 12 months, did you do any of the following because there wasn't enough money?

H19A...Receive free food or meals? / 1 = *Yes* or 2 = *No*

H19B...Did your (child/children) go hungry? / 1 = *Yes* or 2 = *No*

H19C...Did you go hungry? / 1 = *Yes* or 2 = *No*

H19D...Did you not pay the full amount of rent/mortgage payments? / 1 = *Yes* or 2 = *No*

H19E...Evicted from your home/apartment for not paying the rent/mortgage? / 1 = *Yes* or 2 = *No*

H19F...Did you not pay the full amount of a gas, oil or electricity bill? / 1 = *Yes* or 2 = *No*

H19G...Was your gas/electric service turned off? / 1 = *Yes* or 2 = *No*

H19H...Was your telephone service turned off? / 1 = *Yes* or 2 = *No*

H19I...Borrow money from friends/family to help pay bills? / 1 = *Yes* or 2 = *No*

H19J...Move in with other people because of financial problems? / 1 = *Yes* or 2 = *No*

H19K...Stay in a shelter/abandoned building/automobile for even one night? / 1 = *Yes* or 2 = *No*

H19L...A household member didn't go to the doctor or hospital because of the cost? / 1 = *Yes* or 2 = *No*

Couple Processes

Contact

A11. How often does the mother see or talk to the father?

1-----2-----3-----4-----5-----0
Daily, or Almost A few times a week A few times a month A few times a year Hardly Ever Never

Conflict (Asked to mothers who were in a relationship at baseline or year one)

D4A. How often do the mother and father argue about things that are important to them?

1-----2-----3-----4-----5
Always Often Sometimes Rarely Never

General Relationship Quality (Asked to mothers who were in a relationship at baseline or year one)

D4. How does the mother rate her relationship quality with the father?

1-----2-----3-----4-----5-----(-10)
Excellent Very Good Good Fair Poor Never In Relationship

Wave 3 (Year Three)

Economic Pressure

I23. In the past 12 months, did you do any of the following because there wasn't enough money?

I23A. Did you receive free food or meals? / 1 = *Yes* or 2 = *No*

I23B. Did you not pay the full amount of rent/mortgage payments? / 1 = *Yes* or 2 = *No*

I23C. Evicted from your home/apartment for not paying the rent/mortgage? / 1 = *Yes* or 2 = *No*

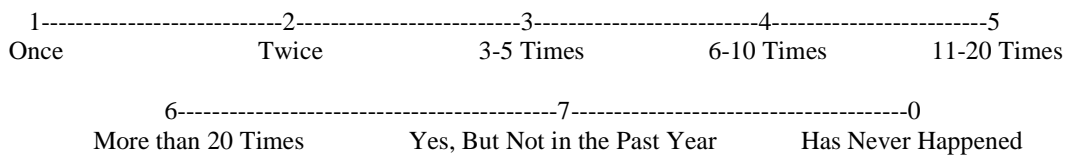
- I23D. Did you not pay the full amount of a gas, oil, or electricity bill? / 1 = *Yes* or 2 = *No*
- I23E. Did you borrow money from friends/family to help pay bills? / 1 = *Yes* or 2 = *No*
- I23F. Move in with other people because of financial problems? / 1 = *Yes* or 2 = *No*
- I23G. Stay in a shelter/abandoned building/automobile for even one night? / 1 = *Yes* or 2 = *No*
- I23H. A household member didn't go to the doctor or hospital because of the cost? / 1 = *Yes* or 2 = *No*
- I23I. Have you cut back on buying clothes for yourself? / 1 = *Yes* or 2 = *No*
- I23J. Have you worked overtime or taken a second job? / 1 = *Yes* or 2 = *No*

**Wave 3 (Year Three)
In-Home Assessment**

Parental Discipline

Within the past year, how often did the mother:

- J6. Shout yell or scream at the child
- J8. Swear or curse at the child
- J9. State that she would send the child away or kick him/her out of the house
- J10. Threatened to spank or hit the child without doing it
- J14. Called child dumb, lazy or any similar name.



Child Maltreatment

Physical Maltreatment

Within the past year, how often did the mother:

- J3. Shake the child
- J4. Hit him/her on the bottom with a belt, hairbrush, stick or some other hard object
- J7. Spanked him/her on the bottom with bare hands
- J11. Slapped him/her on the hand, arm or leg

J13. Pinched the child

1-----2-----3-----4-----5
Once Twice 3-5 Times 6-10 Times 11-20 Times

6-----7-----0
More than 20 Times Yes, But Not in the Past Year Has Never Happened