Predicting Patterns of Interaction Between Parents and Children Based on Parent Reports of Stress and Potential for Child Maltreatment

by

Susan L. Kuntz Higgins

B.A., William Jewell College, 1993

University of Kansas

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Edward K. Morris, Ph.D., Chairperson

_____

Charles Greenwood, Ph.D.

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Judith J. Carta, Ph.D.

_____

Date Defended

The Thesis Committee for Susan Higgins certifies

That this is the approved Version of the following thesis:

Predicting Patterns of Interaction Between Parents and Children Based on Parent Reports of Stress and Potential for Child Maltreatment

Committee:

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Edward K. Morris, Ph.D., Chairperson

_____
Charles Greenwood, Ph.D.

_____
Judith J. Carta, Ph.D.

_____
Date Approved

Abstract

Child maltreatment is a serious health concern facing children in the United States today. In Federal Fiscal Year 2006, an estimated 3.3 million cases of maltreatment were reported nationwide involving 6 million children. Preventing child maltreatment is of paramount importance due to the long term consequences and negative outcomes for children who have been abused. Traditional methods of assessing risk for maltreatment use self-report from the parent in the form of a standardized measure or questions in an interview format. The purpose of the current study was to examine the association between parents' behaviors toward their 24 month old children as observed using the Indicator of Parent-Child Interaction (IPCI) and behaviors associated with potential for maltreatment as reported by parents on select scales of the Child Abuse Potential Inventory, Adult Adolescent Parenting Inventory, and Parenting Stress Index-Short Form. Results indicated that there were differences on IPCI ratings of parent behaviors as for groups of mothers who scored in the at-risk range compared to those who were not at risk on the self-report measures. Results suggest that observational ratings of parent behavior can be useful ways for identifying parents who may be at risk for child maltreatment.

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Predicting Patterns of Interaction Between Parents and Children Based on Parent Reports of Stress and Potential for Child Maltreatment

Child maltreatment is one of the most serious problems facing children in the United States today (U.S. Department of Health and Human Services, 2008). Preventing child maltreatment is of paramount importance due to the long term consequences and negative outcomes for children who have been abused (Wolfe, Edwards, Manion, & Koverola, 1988; Zelenko, Huffman, Lock, Kennedy, & Steiner, 2001). Children who have been maltreated are at increased risk for psychological disorders, socio-emotional disorders, adjustment disorders, and increased levels of violence and aggression during childhood and adulthood (Hart & Brassard, 1987; Wolfe, Edwards, Manion, & Koyerola, 1988; Wu, Ma, Carter, Ariet, Feaver, Resnick, & Roth, 2004; Zelenko, Huffman, Lock, Kennedy, & Steiner, 2001).

During the Federal Fiscal Year 2006, an estimated 3.3 million suspected cases of possible child abuse and neglect, involving 6 million children in all 50 states and U.S. territories, were reported to children's services agencies (U.S. Department of Health and Human Services, 2008). Of those 3.3 million suspected cases, approximately 30% were substantiated as abuse or neglect (U.S. Department of Health and Human Services, 2008). In the United States, most of the cases reported involve *both* abuse and neglect (Ethier, Couture, & Lacharite, 2004).

Current methods of determining whether a parent is at risk for maltreating their children are completed largely through the use of parent report. Parent reports may take

the form of standardized assessments such as the Child Abuse Potential Inventory (CAPI; Milner, 1980) and through interviews or conversations with the parent. When questions are asked about sensitive topics such as abuse or neglect, concerns that the parent may not be forthcoming or may choose not to answer specific questions are present (Tourangeau & Smith, 1996). The more sensitive the topic is to the parent responding, the less likely he or she will be to respond accurately (Tourangeau & Smith, 1996).

With approximately 3.3 million children a year being victims of child abuse and neglect (U.S. Department of Health & Human Services, 2008), an urgent need exists for more timely and sensitive measures that identify abuse or neglect *before* it occurs. A promising approach to early identification of potential parental behaviors and beliefs by parents that could indicate a higher likelihood that the parent may become an abuser is through observation of parent child interactions. The Indicator of Parent Child Interaction (IPCI; Baggett, Carta, & Horn, 2002) is an observational measure of parent child interaction that takes place in a 10 minute timed session. Parenting behaviors such as negative or punitive comments toward the child, unnecessary restrictions on the child, how warm and accepting the parent is towards the child, and how the parent responds to the child are closely observed and scored.

The purpose of the current study was to examine the association between parent behaviors as observed during an IPCI session and behaviors associated with potential for maltreatment as reported by parents on select scales of the CAPI, the Adult-Adolescent Parenting Inventory (AAPI-2; Bavolek & Keene, 2001) , and the Parenting Stress Index Short Form (PSI/SF; Abidin, 1983).

Review of the Literature

Background on the Problem of Abuse

One of the most challenging roles a person can assume in his or her lifetime is that of a parent. Parenting behaviors are constantly influenced by a multitude of factors (Ateah, 2003). Just two examples include: the presence of clinically significant levels of stress (Casady & Lee, 2002 & Eamon, 2001) and living at or below the poverty level (Eamon, 2001; Eamon & Zuehl, 2001; Lee & George, 1999; Peterson, Ewigman, & Vandiver, 1994; Whipple, 1999). Unfortunately for some parents, these factors lead to behaviors that are not in the best interests of their child and can lead to child maltreatment.

Child maltreatment is an umbrella term that encompasses both child abuse and neglect. Although each state has its own specific definitions of what constitutes abuse and neglect, a minimum standard definition is outlined by the Federal Child Abuse Prevention and Treatment Act (CAPTA, 2007). Child physical abuse is typically defined as: "any nonaccidental physical injury to the child"; this can include such actions as hitting, kicking, burning, or throwing a child under the age of 18 (CAPTA; Child Information Gateway, 2007; Bousha & Twentyman, 1984; Dubowitz & Bennett, 2007). Child neglect is defined as a "deprivation of adequate food, clothing, shelter, medical care or supervision." (CAPTA; Child Information Gateway, 2007; Dubowitz & Bennett, 2007) Most states also include the lack of adequate education for children (either in public schools or with an approved home school curriculum) in their definitions of neglect (CAPTA; Child Information Gateway, 2007). Although these are the generally

accepted minimum standard definitions of abuse and neglect, maltreatment is still difficult to identify because the timing, severity, and frequency of maltreating behaviors are often unknown (Harrington, Black, Starr, & Dubowitz, 1998).

Not only are the obvious physical consequences of maltreatment problematic (Asawa, Hansen, & Flood, 2008), but emotional, cognitive, social, and behavioral consequences of maltreatment are also a concern as they affect long term growth and functioning into adulthood (Ammerman, Kolko, Kirisci, Blackson, & Dawes, 1999; Aragona & Eyberg, 1981; Asawa, Hansen, & Flood, 2008; Bower-Russa, Knutson, & Winebarger, 2001; Dubowitz & Bennett, 2007; Kim & Cicchetti, 2004; Schuck, & Widom, 2005). Ongoing maltreatment leads to higher rates of externalizing behaviors such as aggression, lower rates of pro-social behavior, and lower academic achievement. Maltreatment has also been shown to be linked to violent and criminal behavior in adolescence and adulthood (Asawa, Hansen, & Flood, 2008; Bower-Russa, Knutson, & Winebarger, 2001; Dubowitz & Bennett, 2007; Haskett, Allaire, Kreig, & Hart, 2008; Kim & Cicchetti, 2004; Schuck & Widom, 2005; Wu, Xing Ma, Carter, Ariet, Feaver, Resnick, & Roth, 2004).

With the occurrence of child abuse and neglect at such a high rate and the physical and developmental consequences for children potentially devastating (if not fatal), extensive research has been conducted to determine factors that increase the likelihood of parents becoming abusers. Although numerous risk factors have been identified in the literature, none has emerged as the single strongest risk factor; rather, a broad range of risk factors interact to increase the likelihood of abuse (Cadzow,

Armstrong, & Fraser, 1999; Ondersma, 2002). Some of the strongest and most frequently identified risk factors for abuse and neglect are those of parenting stress (e.g., poverty and substance abuse) and parenting beliefs that, in turn, correlate with parenting behaviors (e.g., use of corporal punishment, inappropriate expectations of child behavior, parent/child interactional styles and rigidity) (Ashton, 2001; Ateah & Durrant, 2005; Barnett, 2007; Berger, 2004; Chilamkurti & Milner, 1993; Ethier, Couture, & Lacharite, 2004; Kanoy, Ulku-Steiner, Cox, and Burchinal, 2003; McBride, Schoppe, & Rane, 2002; Nair, Schuler, Black, Kettinger, & Harrington, 2003; Rodriguez & Richardson, 2007; Shay & Knutson, 2008; Sieger & Renk, 2007; Sprang, Clark, & Bass, 2005; Walsh, MacMillan, & Jamieson, 2003; Widom & Hiller-Sturmhofel, 2001). Each of the potential risk factors listed above will be described in greater detail below, along with a description of the pathway between the risk factor and potential maltreatment.

Risk Factors for Maltreatment

Parenting stress. Parenting stress is a broad term that includes internal factors such as depression, loneliness, anger, and feeling socially isolated (Casady & Lee, 2002; Eamon, 2001; Eamon & Zuehl, 2001; Gaudin, Polansky, Kilpatrick, & Shilton, 1993; Haskett, Allaire, Kreig, Hart, 2008; Sedlar & Hansen, 2001; Shay & Knutson, 2008; Wekerle, Wall, Leung, Trocme, 2007), as well as external factors such as poverty, lower maternal education, and availability of community supports (Belsky, 1993; Berger, 2004; Casady & Lee, 2002; Casanueva, Martin, Runyan, Barth, & Bradley, 2008; Dukewich, Borkowski, & Whitman, 1999; Eamon, 2001; Eamon & Zuehl, 2001; Sidebotham & Heron, 2006; Wekerle, Wall, Leung, Trocme, 2007). Although a parent may have any

one or a combination of these risk factors present in their lives and not be abusive, all of these factors contribute to a higher potential for child abuse and/or neglect; the greater number of these risk factors present, the greater susceptibility that parents have toward becoming abusive (Haapasalo & Aaltonen, 1999). The specific effects and relationships among these factors, however, have yet to be fully identified (Berger, 2004). Since all of these factors often occur together in at-risk families, research typically discusses several of these factors together. It is very difficult to separate each risk factor for discussion as they appear to be closely intertwined with each other (Ateah, 2003).

It is important to note that, although most parents who are found to be abusive have elevated levels of depressive symptoms, not all parents who are depressed maltreat their children (Haskett, Allaire, Kreig, & Hart, 2008; Shay & Knutson, 2008). Mammen, Kolko, and Pilkonis (2002) found that the higher the level of depression a parent experienced, the higher the level of violence perpetrated. Parental depression leads to limited responsiveness from the parent to their child and that child's needs (Casanueva, Martin, Runyan, Barth, & Bradley, 2008). Increased levels of depression can lead to inappropriate response to children's cues and signals, thereby increasing the potential for the parent to react more negatively (Asawa, Hansen, & Flood, 2008; Cohn, Matias, Tronick, Connell, & Lyons-Ruth, 1986). In addition, depression can lead a parent to be more permissive with his or her child due to the impaired ability of the parent for self-regulation. This leads to parents being more likely to give in to demands from their children, but may also lead to inappropriate discipline or ineffectively dealing with misbehavior (Leung & Smith Slep, 2006).

What is known and documented about the relationship between parenting stress and maltreatment is that the balance between stressors and supports appears to determine how much stress a parent perceives. This in turn affects his or her potential for child maltreatment (Belsky, 1993). Once a parent begins to feel his or her stressors outweigh their supports, the probability that child maltreatment will occur increases (Belsky, 1993; Haapasalo & Aaltonen, 1999). High levels of parenting stress also lead to heightened emotion and may impair decision-making (Casanueva, Martin, Runyan, Barth, & Bradley, 2008; Whipple, 1999). "Feeling overwhelmed, incompetent in the parenting role, or consistently unhappy with one's life can all be symptoms of parenting stress" (Mulsow, Caldera, Pursley, Reifman, & Huston, 2002, p. 944).

Poverty. Poverty has long been established as a risk factor for potential abuse and neglect (Eamon, 2001; Eamon & Zuehl, 2001; Lee & George, 1999; Peterson, Ewigman, & Vandiver, 1994; Whipple, 1999). The literature reflects two common explanations. First, living at or below the poverty level creates a set of chronic stressors and strains, which in turn create elevated levels of parental stress, anger, and depression (Asawa, Hansen, & Flood, 2008; Berger, 2004; Eamon, 2001; Eamon & Zuehl, 2001; McDaniel & Slack, 2005; Peterson, Ewigman, & Vandiver, 1994; Whipple, 1999). A second reason poverty is often reported as a risk factor for abuse and neglect may be that families who live at or below the poverty line have more contact with family service agencies who serve low-income populations and are mandated reporters (Asawa, Hansen, & Flood, 2008; Berger, 2004; McDaniel & Slack, 2005). Thirdly, poverty has been linked to substance use and abuse. Low income may a be a result of the parent using or abusing

drugs and/or alcohol; conversely, being at or below the poverty level may contribute to the initial and continued use or abuse of substances (Widom & Hiller-Sturmhofel, 2001).

Anger. Parental anger may lead to physical abuse and/or neglect through the increased tendency of parents who are angry to resort to physical punishment that may go beyond accepted discipline and into abuse, even for parents who typically do not use physical punishment with their children (Ateah & Durrant, 2005). Although anger is a common emotion expressed by many parents, no causal link has yet been established between parental anger and maltreatment, an association between the two is emerging in the literature (Kolko, 1996; Sedlar & Hansen, 2001).

To further strengthen the argument that these factors increase the potential for abuse and neglect is that research shows that as mothers' level of education increases effective coping strategies are more commonly used. Also, education typically leads to higher income employment, thereby reducing the levels of anger and depression felt due to poverty, lowering the child abuse potential (Eamon, 2001; Kessler, 1982). Lower levels of abuse are also found in at-risk families who receive more supportive community assistance and more social support (Casady & Lee, 2002).

Substance use. The use of alcohol and/or drugs may be a risk factor in the maltreatment of children for a variety of reasons. Ammerman, Kolko, Kirisci, Blackson, & Dawes (1999) list the following: parents may neglect their children in their quest to obtain drugs and/or alcohol; the use of drugs and/or alcohol contributes to lower tolerance levels and a lower frustration tolerance as well as increased reaction to anger; the use of alcohol and/or drugs can interfere with the judgment of parents; and drug

and/or alcohol use can lead to lower inhibitions of aggression and aggressive impulses that parents may experience. The use of drugs and/or alcohol may also lead parents to be more punitive with their children and may lead to lower response levels to their children (Nair, Schuler, Black, Kettinger, & Harrington, 2003).

The reported incidence rate of parents who maltreat their children and who also have a substance abuse problem ranges between 13% to over 70% (Magura & Laudet, 1996). Dunn, Tarter, Mezzich, Vanyukov, Kirisci, and Kirillova (2002) found that in many cases of substance abusing parents, child neglect was more common than physical abuse. Although no causal link has been determined, Dunn et al., (2002) shows that the higher the levels of substance use, the more likely parents are to neglect their children. As the parents' use of substances rises, the quality of parenting decreases (Dunn et. al., 2002).

Inappropriate age expectations of child. For both teen and adult parents, inappropriate age expectations for children contribute to the potential for abuse and neglect (Borrego, Urquiza, Rasmussen, & Zebell, 1999). If parents expect their one-year-old to fully know right from wrong, or to be fully able to dress themselves, when the child is unable to perform those tasks successfully the parent takes it as a personal insult and the resulting discipline can lead to maltreatment (Asawa, Hansen, & Flood, 2008). Parents of toddlers who do not realize that behaviors such as willfulness and autonomy are part of the normal developmental process may see those behaviors as defiance or disobedience and therefore may react with inappropriate child management strategies, including physical punishment (Asawa, Hansen, & Flood, 2008; Ateah, 2003; Hecht &

Hansen, 2001; Whipple, 1999). For parents who have young infants, abusive parents are more likely to attribute the infant's crying as a hostile and purposeful behavior intended to anger the parent rather than realizing that crying is typical and often unambiguous (Crouch, Skowronski, Milner, & Harris, 2008).

Herrenkohl, Herrenkohl, & Egolf, (1983) looked at parents' attribution of negative behavior from the child as the mitigating factor in the abusive episode. They found that while the child's behavior could be considered annoying or exasperating for a parent, they were not behaviors that were atypical for young children (e.g., refusal to do a task, losing something, being aggressive, etc.) This study supports the theory that parents who are not familiar with typical developmental stages of children or those who hold their children to inappropriate age expectations are at an increased risk for abusing their children when the child does something well within developmental norms.

Parent/child interaction styles. While the above risk factors have been shown to increase the potential for parents to maltreat their children, research has also shown that parent/child interactions may be a determinant of maltreatment (Bousha & Twentyman, 1984; Oldershaw, Walters, & Hall, 1986). For example, "by definition, the very nature of the abuse process implies that something has gone wrong in the parent-child interaction." (Oldershaw, Walters, & Hall, 1986, p. 722).

Parents who typically engage in abusive relationships with their children tend to also exhibit characteristics of authoritarian parenting, being controlling, punitive and rigid in their parenting style. (Belsky, 1993; Borrego, Urquiza, Rasmussen, & Zebell, 1999; Peterson, Ewigman, & Vandiver, 1994; Whipple, 1999). Typically, they engage in

discipline that is inappropriate for the child's age and inappropriate for the child's transgression (Whipple, 1999). In addition, these parents tend to view what their children have done as more wrong than non-abusive parents and will use fewer reasoning skills and more power assertive methods in their interactions than non-abusive parents (Bennett, Sullivan, & Lewis, 2006; Borrego, Urquiza, Rasmussen, & Zebell, 1999; Bousha & Twentyman, 1984).

As compared to non-abusive parents, parents who abuse show less verbal interaction with their children as well as less positive physical interaction (Aragona & Eyberg, 1981; Asawa, Hansen, & Flood, 2008; Bousha & Twentyman, 1984; Timmer, Urquiza, Zebell, & McGrath, 2005). Additionally, abusive parents find their children's actions to be more annoying and have more negative expectations (e.g., they expect their child to not make them happy or to do something good) from their child (Bradley & Peters, 1991; Dadds, Mullins, McAllister, & Atkinson, 2003). These parents tend to overly rely on negative patterns of behavior (e.g., criticism, harsh voice, corporal punishment, less physical interaction, and less verbal interaction) with their children (Kavanagh, Youngblade, Reid, & Fagot, 1988). The overuse of negative behaviors by parents reduces the amount and frequency of positive attitudes and exchanges with their children (Kavanagh, Youngblade, Reid, & Fagot, 1988).

Parents who are substance abusers show the same negative interaction patterns as discussed above with their children and they rate themselves as less competent at parenting, which increases the risk for neglect even further (Dunn et al., 2002). In addition, abusive parents are: more negative and verbally aggressive in what verbal

interaction they do engage in, more commanding with their children, and provide less instruction and fewer reinforcing comments (Aragona & Eyberg, 1981; Asawa, Hansen, & Flood, 2008; Chilamkurti & Milner, 1993). Mash, Johnston, & Kovitz (1983), observed parents in structured and unstructured play sessions, and found that mothers who were abusive were more controlling and negative towards their children regardless of the child's behavior during the session.

When asked about their child's behavior and their expectations of their child, parents who have been found to be abusive have reported higher levels of problem behaviors from their children and more negative expectations of their children, even when observations of their interaction do not yield the same findings (Bennett, Sullivan, & Lewis, 2006; Bradley & Peters, 1991; Chilamkurti & Milner, 1993). Parents who are abusive tend to either not recognize positive behaviors in their children or fail to respond to those behaviors. This leads to fewer positive interactions and decreased positive reinforcement for those children (Kavanagh, Youngblade, Reid, & Fagot, 1988).

Corporal punishment. "Child-rearing attitudes and discipline practices do not exist independently of each other. It is not only true that attitudes influence the behavior of parents toward offspring, but parents' discipline practices also are likely to shape their child-rearing beliefs and attitudes." (Jackson, Thompson, Christiansen, Colman, Wyatt, Buckendahl, et al., 1999, p. 17) If a parent is against all types of physical punishment for children, the chances that his or her child will be physically abused due to overly harsh corporal punishment decreases. Conversely, if a parent was raised in a home where corporal punishment was used as the first or only discipline method, that parent is more

likely to engage in physical punishment that may exceed appropriate levels possibly leading to physical abuse. Research has shown that parents who are more likely to endorse corporal punishment and use it on a regular basis have higher rates of physical abuse and neglect (Asawa, Hansen, & Flood, 2008; Ateah, 2003; Whipple, 1999). In North America, it is estimated that approximately 90% of parents have used corporal punishment on their children (Ateah, 2003). As with other parenting stress, living at or below the poverty level is a predictor in the use of physical punishment, with parents of lower income being at increased risk of using corporal punishment (Kanoy, Steiner, Cox, & Burchinal, 2003).

Physical punishment has been found to have numerous negative outcomes on children. Among those is the increased risk for child maltreatment (Ateah, 2003). While the use of corporal punishment does not lead to maltreatment or abuse in most cases, many studies have found that abuse does sometimes arise out of instances that began as corporal punishment (Ateah & Durrant, 2005). Greenwald, Bank, Reid, and Knutson (1997) explored the link between corporal punishment and physical abuse. That study proposed that there is a difference between parents who use physical punishment as a discipline strategy and those whose physical punishment extends to abuse. Parents who end up abusing their children have ineffective discipline strategies, lower rates of positive interaction with their children, and use more negative words and actions towards their children in everyday interactions (Greenwald et. al., 1997). Parents who feel that their child was intentional in his or her misbehavior rather than accidental have been found to

use corporal punishment more frequently and this perception could lead to an increased risk of physical punishment becoming child abuse (Ateah, 2003).

For most parents, the use of corporal punishment with their children is intended to bring about immediate compliance and/or cessation of the undesired behavior (Gershoff, 2002). However, research shows that, while the use of corporal punishment may temporarily stop the behavior, corporal punishment is not effective for long-term compliance (Gershoff, 2002; Ispa & Halgunseth, 2004). When the parent expects that using corporal punishment will ensure compliance in the future and it only produces short-term compliance, parents' use of physical punishment may escalate when the child repeats the undesired behavior, due to increased parental frustration (Gershoff, 2002; Ispa & Halgunseth, 2004).

Assessing the risk for maltreatment. The knowledge base is currently in place regarding the cumulative affect these risk factors have in increasing the likelihood abuse and neglect will occur; however, great difficulty exists in measuring the association of these different parenting factors and how they relate to a parents' potential for abusing or neglecting their child.

As stated earlier, the rates of substantiated abuse are very high; however, there are many more cases per year who either are not substantiated or who never get reported. For persons and agencies who are mandated reporters of child abuse and neglect, what constitutes a reportable incident is not always clear. For research projects that use human subjects, the informed consent must include a paragraph that explains how and when confidentiality may be breached. One of those instances is in the case of the participant

telling the researcher that they either have or plan to harm themselves or someone else. When that is the case, researchers have found that participants may be less forthcoming in accurately reporting behaviors (Chaffin & Valle, 2003).

Instruments Contributing to Assessment of Maltreatment

Traditional methods of assessing child abuse potential. In an effort to determine whether or not a parent is likely to abuse (or repeatedly abuse) a child, assessments such as the Child Abuse Potential Inventory (CAPI; Milner, 1980), the Parenting Stress Index (PSI; Abidin, 1983), and the Adult Adolescent Parenting Inventory (AAPI-2; Bavolek & Keene, 2001) are routinely used to assess change in risk factors of maltreatment of children (Chaffin & Valle, 2003).

The Child Abuse Potential Inventory (CAPI; Milner, 1980) is a widely used parent report measure in screening for physical child abuse. In its entirety, the CAPI is a 160 item scale to which parents answer "agree" or "disagree" for each question. There are a total of ten scales on the CAPI (Milner, 1980). The abuse factor scale is divided into six subscales (distress, rigidity, unhappiness, problems with child and self, problems with family, and problems from others); and the other three scales are validity scales which yields three response distortion scores (faking good, faking bad, and random response) (Milner, 1980). For the purposes of screening for physical child abuse, only the abuse factor scale, comprised of 77 of the items is used (Milner, 1980). The abuse factor scale of the CAPI has been shown to be an accurate predictor (94%) of a parent who is abusing their child (Milner, 1980; Dukewich, Borkowski, & Whitman, 1999). Although that is an impressive percentage of parents that the CAPI will accurately

identify as physical abusers, there first has to be an identified need for that parent to be screened. More often than not, this screening takes place because the parent has been reported to a social service agency.

Another self report parent measure used with parents who are at risk for maltreating their children is the Adult-Adolescent Parenting Inventory (AAPI-2; Bavolek & Keene, 2001). The AAPI-2 is a 40 item scale that looks at parent attitudes and beliefs about child rearing (Bavolek & Keene, 2001). These responses yield five sub-scores; which provide a risk index in relation to five constructs shown to be contributors to child abuse and neglect (Bavolek & Keene, 2001). The five constructs that comprise the AAPI-2 are: inappropriate expectations of children, lack of empathy of children's needs, belief in corporal punishment, parent-child role reversal of family roles, and oppression of children's power and independence (Bavolek & Keene, 2001). The lower the scores a parent receives on each of the above five constructs, the higher the risk for abuse and neglect (Bavolek & Keene, 2001).

Although these standardized measures have been shown to accurately identify behaviors and beliefs that indicate a risk level for maltreating, too often they are administered to parents after the abuse has occurred. Another drawback to using standardized measures is that the scores only show general areas where parents score in a concern or abusive range; they provide no specific behaviors or attitudes for interventionists to use as guidelines for helping that particular family to change. Thirdly, standardized measures can be time consuming and lengthy to administer, especially for parents who have difficulties in reading and comprehension. Therefore, a direct

observational measure that examines parenting behaviors that are indicative of the potential for abuse needs to be implemented and widely used to provide additional information and support for the information gained from the standardized measures (Bennett, Sullivan, & Lewis, 2006).

Observational methods of assessing potential. Direct observation can be more beneficial in providing specific information about parenting behaviors shown to contribute to abuse and neglect. Overt behaviors such as: low levels of positive comments and low involvement with their child, higher uses of critical, negative and/or punitive statements with their child, and more controlling behaviors with their child can easily be observed and recorded (Aragona & Eyberg, 1981; Bennett, Sullivan, & Lewis, 2006; Bousha & Twentyman, 1984). The same concern with "faking good" that exists in the parent report measures also exists for observational measures, although the actual extent to which it happens is currently not known (Bennett, Sullivan, & Lewis, 2006). Benett, Sullivan, & Lewis (2006) suggest that one way to reduce the levels of socially desirable responding in parental observations would be to conduct an observation session that had the parents and children engage in behaviors in a naturalistic home setting and without specific teaching tasks. Rather, have the parent and child engage in typical activities that would be a normal part of daily life (Bennett, Sullivan, & Lewis, 2006).

One such naturalistic direct observational measure that not only examines risky parenting behaviors, but that is also easy to administer and score, is the Indicator of Parent Child Interaction (IPCI; Baggett, Carta, & Horn, 2002). Although the IPCI does not determine risk for maltreatment, it does monitor progress in the parents' use of

positive and negative behaviors that could be indicative of behaviors associated with increased risk of child maltreatment. In addition, the IPCI also monitors nurturing behaviors that the parents engage in with their children.

The IPCI is a 10 minute semi-structured session in which parents and children are asked to participate in routines that should be a part of their daily lives. Routines are divided into four segments: free play, looking at books, a distraction task, and a dressing task. While all parent child dyads complete all 4 segments of the IPCI, they are free to choose toys and activities during the free play session that the child is interested in. The parents are provided books for the book looking portion; however, if a child has a favorite or preferred book that they would rather use they are free to do so. The dressing task asks the parent to help the child either change clothes or get dressed for the day to look at how typical daily routines are handled. The distraction task is used for children 12 months of age and older and is designed to measure how both parents and children handle frustration when the child is told they should not have access to an item. Ideally, the IPCI is videotaped by the home visitor or interventionist who is working with the family, so that after scoring has been completed, the video can be used with the family to point out where they have strengths and weaknesses.

As stated above, many risk factors increase the potential for abuse or neglect of children. The present study focuses on those specific parenting behaviors that are part of the IPCI, and parenting beliefs and behaviors measured by the CAPI, PSI/SF, and AAPI-2. Parents were asked to complete these measures at the 24-month assessment point of a longitudinal research study. The aim of the larger study was to prevent child neglect in

high risk mothers, the specific risk factors examined in *this* study are: parenting stress, parenting beliefs, and rigidity of (parenting) beliefs.

Research Questions and Hypotheses

The data for this study came from a multi-site longitudinal study, *Preventing Child Neglect in High Risk Mothers: "My Baby and Me."* This study (R01 HD04 – 4868 – 01) funded by the National Institute of Mental Health (NIH) was part of a multi-site prevention study; conducted by the Center for the Prevention of Child Neglect comprised of researchers at the University of Kansas, University of Notre Dame, Georgetown University, and University of Texas Health Science Center at Houston. The study was a randomized control design study with intensive repeated measures over time to test the effects of an intensive prevention program aimed at reducing child neglect and improving parenting and child outcomes.

As a part of that study, data were gathered that examined the risk potential for child maltreatment. The present study, using only data obtained from the University of Kansas sample, examined the association between an observational measure of parent-child interaction and parenting risk for child maltreatment; including parenting stress, and high risk parenting beliefs. The purpose of the current study was to examine the association between parent behaviors as observed during an IPCI session and behaviors associated with potential for maltreatment as reported by parents on select scales of the CAPI, the Adult-Adolescent Parenting Inventory (AAPI-2; Bavolek & Keene, 2001) , and the Parenting Stress Index Short Form (PSI/SF; Abidin, 1983). Also examined were associations between the IPCI and scales on the Adult-Adolescent Parenting Inventory

(AAPI-2; Bavolek & Keene, 2001) and the Parenting Stress Index Short Form (PSI/SF; Abidin, 1983) that indicate parents may be at higher risk for maltreating their children. The CAPI is the only measure that provides a direct risk potential score for child maltreatment. Although no causal link has yet been established, the scales from the AAPI-2 and the PSI/SF are associated with higher risk for maltreatment. Thus, these research questions and hypotheses were addressed :

1. What was the overall magnitude and variance in parents' interaction patterns with their children at the 24 month assessment point in the context of this low-SES sample of mothers and their children?
2. How did mothers' patterns of interaction with their infants vary depending on the presence of specific risk factors?

   We hypothesize that mothers who score in the "at-risk" range on the Child Abuse Potential Inventory Abuse Scale, the Parenting Stress Index Total Stress Scale, and the Adult-Adolescent Parenting Inventory Empathy Scale measures will demonstrate more frequent interruptions with their 24 month old children as rated on the Indicator of Parent Child Interaction.

   and comparatively fewer responsive interactions than mothers who score in the typical range on the risk measures.
3. How will children's behavior on the IPCI vary depending on their mother's levels of Caregiver Facilitator and Caregiver Interrupter behaviors?

   We hypothesize that patterns of Child Engagement and Child Distress

behavior will be influenced by levels of Caregiver Facilitator and Caregiver Interrupter behaviors.

4. Did mothers who were assigned to the high intensity treatment differ in their parenting behaviors as measured on the IPCI compared to those mothers who were assigned to the low intensity treatment?

   We hypothesize that mothers assigned to the high intensity treatment condition will be observed to have higher levels of Caregiver Facilitator behaviors and significantly lower levels of Caregiver Interrupter behaviors than mothers in the low intensity treatment condition.

Method

Sample

Across sites, high risk participants were recruited from community agencies, schools and prenatal care clinics who served and provided prenatal care to low-income women in Kansas City, Kansas and Missouri, Washington, D.C., Houston, Texas, and South Bend, Indiana. The data for the current study came only from data collected in Kansas City, Kansas and Missouri. High risk for this study was characterized by low maternal education, (defined as a lack of completion of a high school degree). A GED did not count as a high school degree, and therefore women who had obtained their GED were eligible for inclusion in the study. In addition to low maternal education, teenage mother status was considered as a high risk factor. The major inclusion criteria for the study were that the mother was at least 15 years old and had not graduated from high

school. Additional inclusion criteria required that women were not older than 39 years of age and had no more than one other child currently under the age of five years old.

Exclusion criteria were as follows: mothers were receiving inpatient mental health or substance abuse treatment, mothers were diagnosed with a major mental health disorder such as schizophrenia, mothers were residing in a homeless shelter or otherwise homeless, infants were diagnosed with a severe physical or developmental disability at birth, infants spent more than 60 days in a neonatal intensive care unit, and infants were removed from their mother's custody by child protection services or were otherwise not expected to live with the mother after birth.

Informational flyers were distributed to community agencies along with interest cards that prospective participants could fill out requesting more information about the study. Clinic staff provided flyers and interest cards to all women who were in their second trimester of pregnancy, who were at least 15 years of age or older, and who had not graduated from high school. Completed interest cards were picked up by members of the My Baby and Me staff and mothers were contacted by phone (or sent a letter in the mail if they did not have a current working phone number) to describe the study in detail and to schedule a home visit to obtain consent and administer an initial prenatal assessment. There was no way to estimate the number of mothers who were provided information about the study from the community agencies and prenatal clinics, as only those who were interested completed interest cards. Recruitment began in July of 2004 and continued until the end of November 2005. At the end of the recruitment period, the Kansas site had enrolled a total of 97 mother child dyads.

After the completion of the prenatal assessment, mothers were randomly assigned to a high intensity intervention group or a low intensity control group. Mothers in both groups received referrals to critical services (e.g., GED programs, job training, health and child care) based on a needs identification through assessment and parent request. Mothers in both groups also participated in an intensive, repeated assessment protocol at 6 month intervals. The assessment protocol involved two questionnaires; the first was administered by the family coach and asked about family support, child care, typical food and drink for the child, any other pregnancies, and such standardized measures as the CAPI, AAPI, PSI/SF, and a home environment scale. The second questionnaire was administered by the project assessor and asked the mother questions about activities that they engage in with their child such as reading, playing games, if they have used physical punishment, etc. In addition, at the assessment visits, the project assessor would also administer the IPCI session and the Preschool Language Scale (PLS) on the child.

Mothers in the high intensity treatment group also received intensive weekly intervention home visits by coaches for the first year of the study. In years 2 and 3, the high intensity group received bi-weekly intervention sessions in their homes. A specific protocol of parent training was followed, as well as providing intensive help with resources. The low intensity control group received monthly check-in phone calls and referrals based on parent request. The only face-to-face contact for the low-intensity control group was during assessment periods, which occurred at 1 month, 4 months, 10 months, 16 months, 24 months, and 30 months after the birth of the baby.

The present study is utilizing data from only the 24-month assessment point. All observation and standardized measures data were obtained at this time point. While 97 mother child dyads were initially enrolled in the study, by the 24-month assessment point, attrition had occurred and only 58 families completed this assessment time point. Attrition data for this assessment point is found in the following table.

Table 1

Attrition Status at 24 month Assessment Point

Status	N
Completed	58
Could not find in time	25
Moved away (no longer considered part of the study)	4
Phone Disconnected	3
Ended participation in the study	7
Total	97

One of the families listed as having completed the 24 month assessment point only had child data for this assessment point. There is no CAPI, AAPI, PSI, or IPCI data for this family, as the mom was no longer caring for her child and therefore the only data that could be obtained was cognitive and language measures on the child. For analysis purposes, 57 families have data to be examined. The "could not find in time" category was used in the tracking database for families who could not be found for the 24 month assessment point as well as any other data points. Although there were 97 families originally enrolled in the study, there were families who never had any assessment points completed and these families were also listed in the tracking database as "could not find in time."

Of the 58 families that completed the 24 month assessment point, 87.9% (N=51) families were African American, 8.6% (N=5) were Caucasian American, and 3.4% (N=2) were Hispanic. Thirty-Nine (67.2%) were teens at the time of enrollment in the study and 19 mothers (32.8%) were adults. Thirty-two (55.1%) of the mothers were attending high school at the time of enrollment in the study, 4 (6.9%) had passed their GED, 21 (36.2%) were not in school, and 1 (1.7%) had some vocational training.

Procedures

For the "My Baby and Me" study as a whole, once mothers were enrolled, they completed a prenatal assessment session. Once the mother had completed the informed consent process, they were randomly assigned to either the high intensity treatment group or the low intensity control group. The high intensity treatment group received weekly intensive intervention sessions for the first year; in year two, they received bi-weekly

intervention sessions. The low intensity control group received monthly check in phone calls for the duration of the project. Both groups received referrals for critical services (housing, GED, community assistance, etc.) at any time in the project if that service information was requested. Following the birth of the child, assessments were conducted at 1 month, 4 months, 10 months, 16 months, 24 months and concluded at 30 months after birth. Both the high intensity treatment group and the low intensity control group received these intensive repeated assessment protocols. IPCI video sessions were conducted by the project assessor starting at the 4 month assessment period and continued with each assessment through the end of the project. The 24 month assessment point was chosen for analysis in the present study due to the increased factors for maltreatment that occur at this age group for children and their parents. For instance, the level of parenting stress and anger a parent may feel increases as their child becomes more autonomous and defiant during the toddler years (Ateah, 2003; Graham, Weiner, Cobb, & Henderson, 2001). In addition, at this age, parents find it difficult to verbally control and/or reason with their children as strategies to control behavior (Ateah, 2003; Bennett, Sullivan, & Lewis, 2006; Aragona & Eyberg, 1981).

Measures

IPCI

The Indicator of Parent Child Interaction (IPCI) is a ten minute observational measure comprised of 14 items that assesses both parent and child behaviors during a semi-structured play session. There are four domains on the IPCI: Caregiver Facilitators, Caregiver Interrupters, Child Engagement, and Child Reactivity and Distress. Each

domain is comprised of key skill elements. A copy of the scoring definitions and procedures can be found in Appendix A. For the Caregiver Facilitator domain, the key skill elements are: warmth and acceptance, descriptive language, follows child's lead, maintains or extends child's focus, and uses stress reducing strategies. The Caregiver Interrupter domain includes the following three key skill elements: criticism/harsh voice, restrictions/intrusions, and rejects child's bid for attention. The Child Engagement domain has the following key skill elements: positive feedback, sustained engagement, and follow through. The final domain is Child Reactivity and Distress and is comprised of three key skill elements: rapidly shifting signals (irritable/fussing/crying), external distress, (e.g., kicking, screaming, temper tantrums, etc.) and frozen/watchful/withdrawn. For the purposes of this study, although all four domains were scored for each IPCI session, only the Caregiver Facilitator and Caregiver Interrupter scores will be analyzed as they are the subscales which examine parent behaviors and therefore are the scales that would be the most revealing in terms of behavior that might lead to maltreating behaviors.

The IPCI has four activities in which parents and children are asked to participate. The first activity is free play and lasts for four minutes. No specific materials are required for this activity as the purpose is to look at how parents and children typically interact when they have free or play time, although for this study toys were provided for the free play session. The second activity is book looking and lasts for two minutes. Books are provided for this segment by the assessor and parents are encouraged to use the books in whatever way they chose. The instructions for this activity very specifically

do not tell the parents to read books with their children; as it is always possible that parents may not be able to read at a level they are comfortable sharing with someone else in their home and watching. The third activity is the dressing task and again lasts for two minutes. As with free play, there are no specific materials required for this activity, the focus is on how parents and children handle daily routines. The last activity is only done with children who are one year of age or older. This is the distraction task and lasts for two minutes. For the distraction task, the materials required are a five foot by seven foot blanket and a recorder with pre-recorded sounds that plays at seven second intervals. The recorder is attached to a bright set of toy keys. The purpose of the distraction task is to not let the child get a hold of either the recorder or the keys for the two minute time. There are always items in the house that children should not play with either because they are dangerous, breakable, etc., and this task is intended to assess how parents and children behave in these situations. In the current sample of 56 mother child dyads who completed the 24 month IPCI session, all but one completed all 10 minutes of the IPCI session. The other mother child pair had an IPCI session that lasted nine minutes and 26 seconds.

The ideal testing situation for the IPCI is to videotape the session and view the video to score. As the video is viewed, tally marks are made next to any of the key skill elements observed. Once all four activities have been viewed and tallied, a score between "0" and "3" is assigned to each key skill element. A score of "0" indicates that skill element was not demonstrated by the parent or child at all during the 10 minute session. A score of "1" indicates that the key skill element only occurred one time

throughout all four activities. A score of "2" indicates that the key skill element was happened inconsistently throughout the IPCI session. Finally, a score of "3" indicates that whenever there was an opportunity that key skill element was performed during the session. After each key skill element has been assigned a value between "0" and "3", a domain score is achieved by adding together all item scores and dividing by the total numbered possible points for that domain; the end result is a percentage score for each domain.

Inter-rater reliability for the present study was determined by two persons coding 10% (n=6) of the 58 IPCI sessions independently. Scores on each key skill element are compared for exact match agreement. Raters are considered reliable when the rate of agreement is 80% or better across all 14 items and no domain score agreement is below 70%. The inter-rater reliability for this study was conducted on 10.8% (N=6) of cases. The inter-rater reliability for this study was 94% overall.

Reliability and validity studies conducted on the IPCI have shown the following results. Inter-rater reliability done on 49 of 350 assessments showed an exact match agreement on all 14 items of 87.4% (Baggett, 2006; Carta & Baggett, 2006). Agreement on the caregiver scales overall was 84.8% (Baggett, 2006, Carta & Baggett, 2006). Parent facilitators and parent interrupters were at levels of 83.6% and 86% respectively (Baggett, 2006; Carta & Baggett, 2006). Test-retest reliability conducted 30 days apart (N=65) show resulted in correlations of .926 for Caregiver Facilitators and .818 for Caregiver Interrupters (Baggett, 2006; Carta & Baggett, 2006). Criterion related validity was conducted on the IPCI domains to see if the measure is sensitive to low risk vs. high

risk mothers. The results showed that the Caregiver Facilitator scores were significantly higher for the low risk mothers (99.41%) vs. 68.27% for high risk mothers; while Caregiver Interrupters were significantly higher for the high risk mothers (17.46) as compared to 4.94% for low risk mothers (Carta & Baggett, 2006; Baggett, 2006).

CAPI

The Child Abuse Potential Inventory (CAPI; Milner, 1980) is a scale used in screening for physical child abuse. The CAPI is a 160 item scale to which parents answer "agree" or "disagree" for each question. There is an Abuse Factor Scale, as well as scales to detect lying, faking good, faking bad, etc. For the purposes of the "My Baby and Me" study, only the 77 questions that comprise the Abuse Scale were administered. The Abuse Scale is made up of six subscales: distress, rigidity, unhappiness, problems with child and self, problems with family, and problems from others. For the current study, only the Abuse Scale score is being used in analysis. Each subscale, as well as the total abuse scale, has its own set of cutoff scores that indicate the potential for physical child abuse. For the abuse subscale the cut-off score is 166.

The CAPI provides both internal consistency and temporal stability reliability scores. The internal consistency reliability measures the homogeneity of the items, or the degree to which the questions are measuring the same construct. The CAPI shows high internal consistency reliabilities of .92 - .96 for the control groups and .95 to .98 for abusers (Milner, 1980). Validity estimates of temporal stability indicate the degree of stability of test scores over a specified period of time. The higher the levels of temporal stability, the greater the indication that the construct being measured remains stable

across time. For the CAPI, temporal stability on the abuse scale is .91 for a one day interval and .75 for the three month interval respectively (Milner, 1980).

AAPI-2

The Adult-Adolescent Parenting Inventory (Bavolek & Keene, 2001) is a 40 item parent report questionnaire using a 5-point Likert scale ranging from strongly disagree to strongly agree. For pre-and post-test purposes, there are alternate forms labeled Form A and Form B. For this study, only Form A was used. There are five constructs measured in the AAPI-2: a) inappropriate parental expectations, b) parental lack of an empathetic awareness of children's needs, c) strong belief in the use and value of corporal punishment, d) parent-child role reversal, and e) oppressing children's power. All of these constructs examine parental attitudes that contribute to child abuse and neglect. Once parents have completed the appropriate form, a scoring template is used to create a raw score for each construct which is then translated into a sten score. The sten scores range from 1 to 10, the lower the sten score the higher the risk that the parent engages in abusive behaviors. A sten score of 1-3 indicates high-risk for engaging in abusive behaviors, a sten score of 4-7 reflects parenting attitudes and practices of the general population, and sten scores of 8-10 indicate that the parental attitudes and behaviors are nurturing and non-abusive. For the purposes of the My Baby and Me study from which this data comes, only 3 of those 5 scales were used. Those 3 scales included Empathy, Corporal Punishment and Parent-Child Role Reversal.

The Empathy subscale measures the extent to which parents' responses indicate empathy toward children. For example, a high sten score (7 or above) reflects that the

parent, “is sensitive to the needs of children and places those needs in high regard.” (Bavolek & Keene, 2001, p. 23) These empathetic behaviors include: helping their children to meet age appropriate needs, comforting children when hurt or upset, listening to their child, and is not afraid of spoiling their child by attending to any needs their child might have. A low sten score (4 or below) indicates that the parent has difficulty in helping their child meet age appropriate needs. These parents are more likely to use corporal punishment or striking the child rather than listening and comforting the child. “Normal developmental demands that children have are viewed as bothersome and annoying.” (Bavolek & Keene, 2001, p. 23)

The Corporal Punishment Scale pertains to parents’ beliefs regarding the use of corporal punishment. High sten scores in this construct reflect a parent’s use of alternative methods of discipline. Low sten scores on this construct indicate a parent’s willingness to use corporal punishment frequently and liberally. These parents view corporal punishment as the only or best means of discipline for their child.

The Parent-Child Role Reversal scale pertains to parents’ beliefs about the roles that children should play in relation to their parents. A high sten score indicates that the parent realizes the line between parent and child. Children are not expected to be “little adults” and are not expected to take care of the emotional needs of the parent. Conversely, low sten scores on this construct indicate an inappropriately high expectation of a child. For these parents, the child is there to meet their needs, be their friend, know how to comfort them and meet the parent’s emotional needs.

Both Spearman Brown and Cronbach's alpha reliability scores are provided for internal consistency reliability of the AAPI-2 (Bavolek & Keene, 2001). The Spearman Brown scores for the three scales used in this study are .86, .93, and .86 for the empathy, corporal punishment, and role reversal scales respectively (Bavolek & Keene, 2001). The Cronbach alpha numbers for the three scales are: .84, .92, and .85 respectively (Bavolek & Keene, 2001). Content related validity for the AAPI-2 was generated from field testing involving 1,500 adults and adolescents (Bavolek & Keene, 2001).

PSI /Short Form

The Parenting Stress Index Short Form is derived from the full length version of Parenting Stress Index (Abidin, 1983). The PSI/SF is a 36 item questionnaire filled out by the parent and the answers are on a 5-point Likert scale with answers ranging from strongly agree to strongly disagree. Each of the 36 items on the PSI/SF is found on the full length form with identical wording. There is a Defensive Responding Scale which indicates to what extent, if any, the parent is trying to portray themselves in a favorable manner and to de-emphasize any perceived stress or problems in their relationship with their child. In addition to the Defensive Responding Scale there are 3 other subscales on the PSI/SF: Parental Distress (PD), Parent-Child Dysfunctional Interaction (PCDI), and Difficult Child (DC). Once scale scores have been obtained, a Total Stress (TS) score is obtained by adding the scale scores together. While each scale has a cut-off score that signals concern for potential abuse or neglect, each subscale also looks at the interaction of scores between all scales.

The Total Stress score is obtained by adding the scores from the three subscales. Although the title is that of Total Stress, it only measures the amount of stress a person has within the role of parenting. It does not take into account other stressors in the person's life. Parents with scores at or above the 90th percentile are experiencing clinically significant levels of parenting stress.

Using a six month test-retest procedure with 270 subjects, the PSI-SF has a reliability of .84 for the total stress scale (36 items), .85 for the parental distress scale (12 items), .68 for the parent-child dysfunctional interaction (12 items) scales (Abidin, 1983).

At the present time, there is no validity information for the PSI-SF specifically; however, there are validity data between the PSI long form and the PSI-SF. For the total stress scale, the full length PSI correlated .94 with the PSI-SF total stress scale (Abidin, 1983). For the other scales, the validity correlations between the PSI long form and PSI-SF were as follows: the PD scale on the PSI-SF correlated with the Parent Domain score on the full length PSI r = .92 (Abidin, 1983). The PCDI scale on the PSI-SF is made up of items from both the child domain and parent domain of the PSI long form and correlated .73 and .50, respectively, with those long form scales (Abidin, 1983).

Design

A descriptive, correlational design was used to address the research questions. The three measured independent variables (IVs) in the design were indicators of child abuse potential (CAP) as measured by the Child Abuse Potential Inventory (Milner, 1980); (b) parenting stress (PS) as measured by the Parenting Stress Index-Short Form (Abidin, 1983); and (c) parenting beliefs (PB) as measured by the Adult Adolescent

Parenting Inventory (Bavolek & Keene, 2001) and the Child Abuse Potential Inventory (Milner, 1980). Each of these measures was administered when the target child was 24 months of age. The dependent variable (DV) in the design, the Indicator of Parent-Child Interactions (IPCI: Baggett, Carta, & Horn, 2002), is an observational measure of parent and child interaction. It was collected in the home from mothers when the child was 24-months of age. Additional measures of sociodemographics, prenatal depression, and mother's educational history were used for sample descriptive purposes (see Statistical Analysis plan below).

Analysis Plan

Simple descriptive statistics and graphical displays were used to examine the central tendency (Mean), variation (SD), and distributional characteristics of the collected data (Research Question 1). Independent *t* tests or Analysis of Variance (ANOVA) were used to analyze interval/ratio data (e.g., scores on the CAPI, PSI or IPCI scale scores depending on the levels of independent variable (i.e., 2 levels t test, 3 or more levels, ANOVA).

To examine the relationship between and among the predictors (CAPI, PSI, AAPI) Pearson *r* was used. Because the CAPI and PSI scales were highly inter-correlated, in the .44 to .69 range, the PSI scores were dropped from further consideration in predicting parent child interaction pattern. Doing so removed redundant information from predictive analyses (Tippett, Delsole, Mason, & Barnston, 2008). Thus, highly correlated predictors (redundant variables) were eliminated.

To understand the impact of intervention intensity on parent-child interactions, one-way ANOVA was used to identify any significant low vs. high intensity intervention group differences on the four IPCI domains. One ANOVA was run for each domain. Only a single significant difference was identified and it was for Caregiver Facilitators, $F(54)= 3.973$, $p = .051$. The high intensity group produced a mean of 46.7 compared to 38,5 in Caregiver Facilitators for the low intensity group. None of the other three tests were significant. As a result of this finding, Caregiver Facilitators was entered as part of the Risk modeling described below.

To address research questions about the effects of risks and parent-child interaction patterns, *Multiple Linear Regression (MLR)* was used (Tippett, Delsole, Mason, & Barnston, 2008). MLR provided estimates of variance explained by the independent variables (predictors) in the dependent variable.

Results

Preliminary Statistics

The means and standard deviations of the variables of interest in the study are presented in Table 2. Inter-correlations between the study variables are shown in Table 3. Figure 1 shows the normative means on the IPCI measure (Baggett, Hughes, & Carta, in preparation). The normative data were collected on 65 mothers and children who were recruited from an urban Head Start program in Kansas (Baggett, Hughes, & Carta, in preparation). Within that sample, a total of 354 IPCI observations were conducted; 65 observations on low-risk mothers and 285 observations on high risk mothers. Risk status was defined a priori using family scores on the HOME Inventory (Caldwell & Bradley,

2003). For the normative sample, low risk meant that the families had scored in the top 33% on the HOME Inventory (Caldwell & Bradley, 2003) and had no identified environmental risk factors. High risk was defined as families who scored in the bottom 33% on the HOME (Caldwell & Bradley, 2003) with or without environmental risk factors.

Table 2

Descriptive Data

Variable	Mean	Standard Deviation
CAPI Abuse Scale	117.98	94.65
PSI Total Stress Scale	75.82	21.08
AAPI Empathy Scale	5.25	2.20
IPCI Caregiver Facilitator Domain	41.40%	15.14%
IPCI Caregiver Interrupter Domain	46.13%	25.22%
IPCI Child Engagement Domain	76.19%	13.80%
IPCI Child Distress Domain	23.02%	23.20%

Note. Abbreviations were as follows: CAPI = Child Abuse Potential Inventory; PSI = Parenting Stress Index; AAPI = Adult Adolescent Parenting Inventory; IPCI = Indicator of Parent Child Interaction.

Table 3.

Inter-correlations of Study Variables

	1	2	3	4	5	6	7
1. CAPI Abuse Scale	--						
2. PSI Total Stress	.689**	--					
3. AAPI Empathy	-.306*	-.390*	--				
4. IPCI Caregiver Facilitator	-.153	-.188	.403*	--			
5. IPCI Caregiver Interrupter	.146	.168	-.319*	-.576**	--		
6. IPCI Child Engagement	-.211	-.256	.086	.423	-.144	--	
7. IPCI Child Distress	.073	.018	-.180	-.303*	.483**	-.396**	--

Note. CAPI = Child Abuse Potential Inventory; PSI = Parenting Stress Index; AAPI = Adult-Adolescent Parenting Inventory; IPCI = Indicator of Parent Child Development.

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

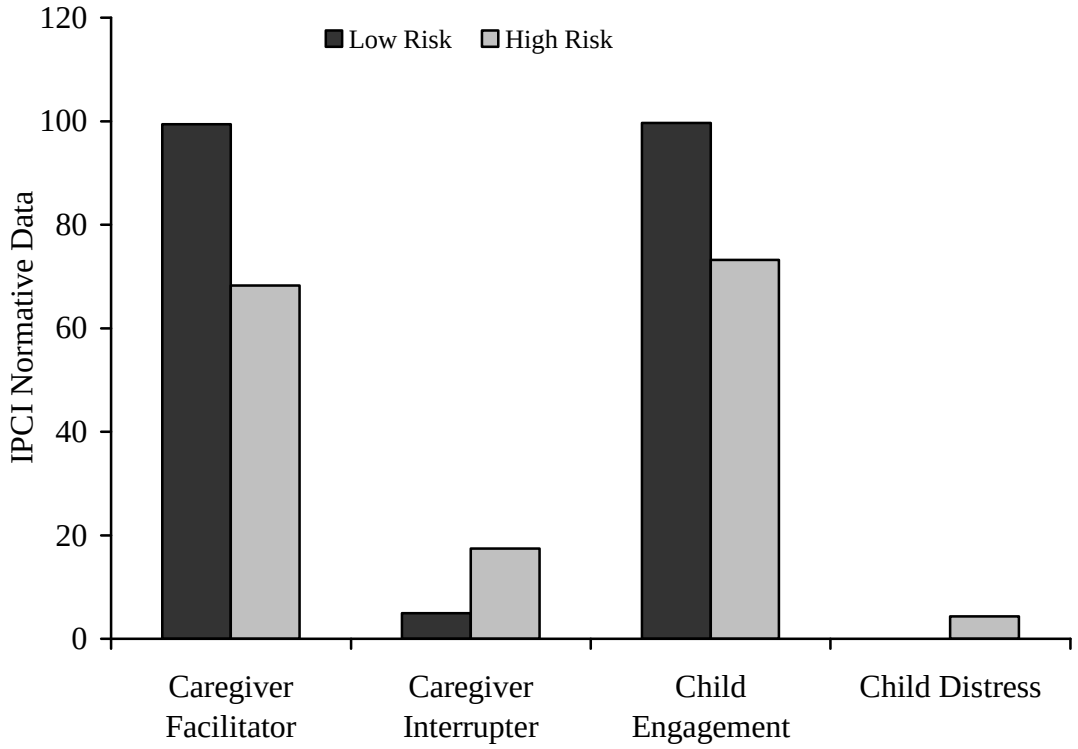

Figure 1. IPCI Normative Data.

Research Questions

Question 1. What was the overall magnitude and variance in parents' interaction patterns with their children at the 24 month assessment point in the context of this low-SES sample of mothers and their children?

Figure 2 shows the mean IPCI domain scores for the participants in the current study. There were 57 assessment questionnaires administered at the 24 month assessment point; however, there were only 56 IPCI sessions. Due to an oversight by an assessor, one IPCI session was not administered. Individual scores in Caregiver Facilitator behaviors ranged from 13% to 75%, Caregiver Interrupter scores ranged from 0 to 100%. Child Engagement individual differences ranged from 66.67 to 100% and Child Distress percentages ranged from 0 to 88.89%. The highest mean IPCI domain score was for Child Engagement (76.61% [*SD* = 13.80%]). Caregiver Facilitator and Caregiver Interrupter domain means were very similar; the Caregiver Facilitator mean domain score was 45.96%; *SD* = 15.14%, and the Caregiver Interrupter mean was 45.32% (*SD* = 25.22%). The lowest mean IPCI domain score was Child Reactivity (22.61% [*SD* = 23.20%]).

Although the mean scores between the Caregiver Facilitator and Caregiver Interrupter domains were similar, the standard deviation was larger for the Caregiver Interrupter domain. The Child Engagement domain had the highest mean of all the domains but it had the smallest standard deviation.

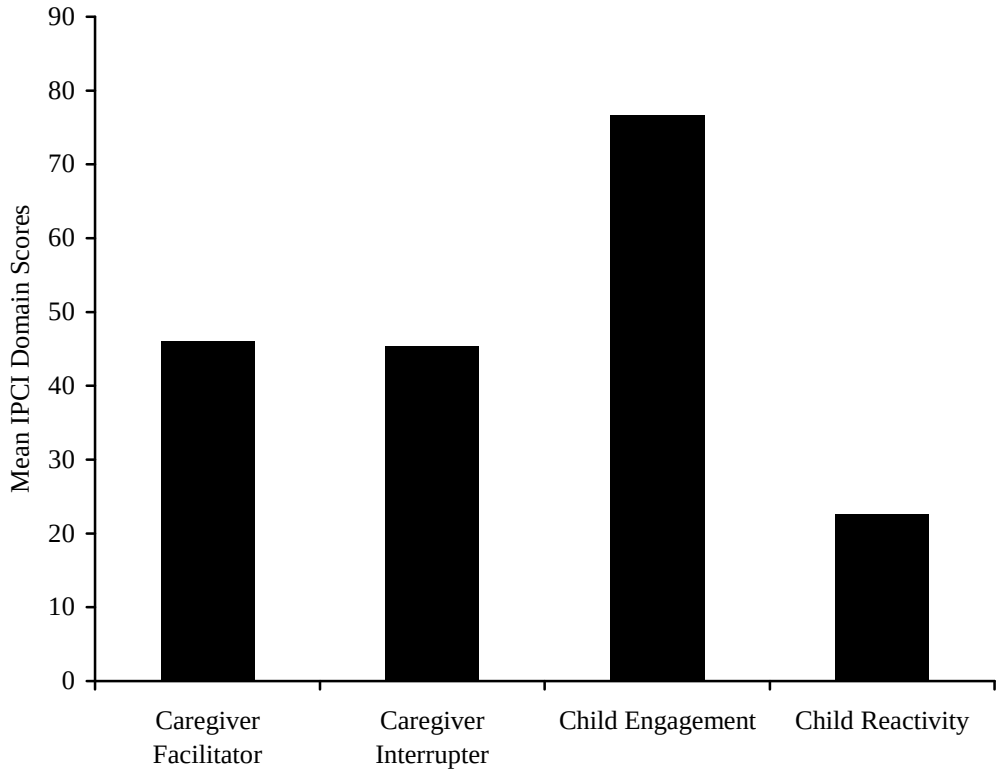

Figure 2. Mean IPCI Total Domain Percentage Scores.

Question 2. How did mothers' patterns of interaction with their infants vary depending on the presence of specific risk factors?

We hypothesize that mothers who scored in the "at-risk" range on the Child Abuse Potential Inventory Abuse Scale, the Parenting Stress Index Total Stress Scale, and the Adult-Adolescent Parenting Inventory Empathy Scale will demonstrate more frequent interruptions and less responsiveness with their children as rated on the Indicator of Parent Child Interaction.

The hypothesis that interaction patterns of mothers with child abuse potential had relatively more frequent interruptions and less responsiveness in the context of the interaction was supported. Figure 3 shows the mean differences in the interaction patterns between the mothers who scored in the risk range on the CAPI abuse scale with the mothers who scored in the normal range on this measure. There were 14 mothers who scored in the risk group on the CAPI Abuse scale. On the IPCI Caregiver Interrupter domain, mothers who scored in the at-risk range had mean scores of 54.76% (*SD* = 23.04%), and mean Caregiver Facilitator domain scores of 37.38% (*SD* = 11.41%). For mothers in the non-risk group (N = 42), mean Caregiver Interrupter scores were 43.25% (SD = 25.52%) and Caregiver Facilitator mean scores were 42.74% (SD = 16.08%). Neither of these differences proved to be significant.

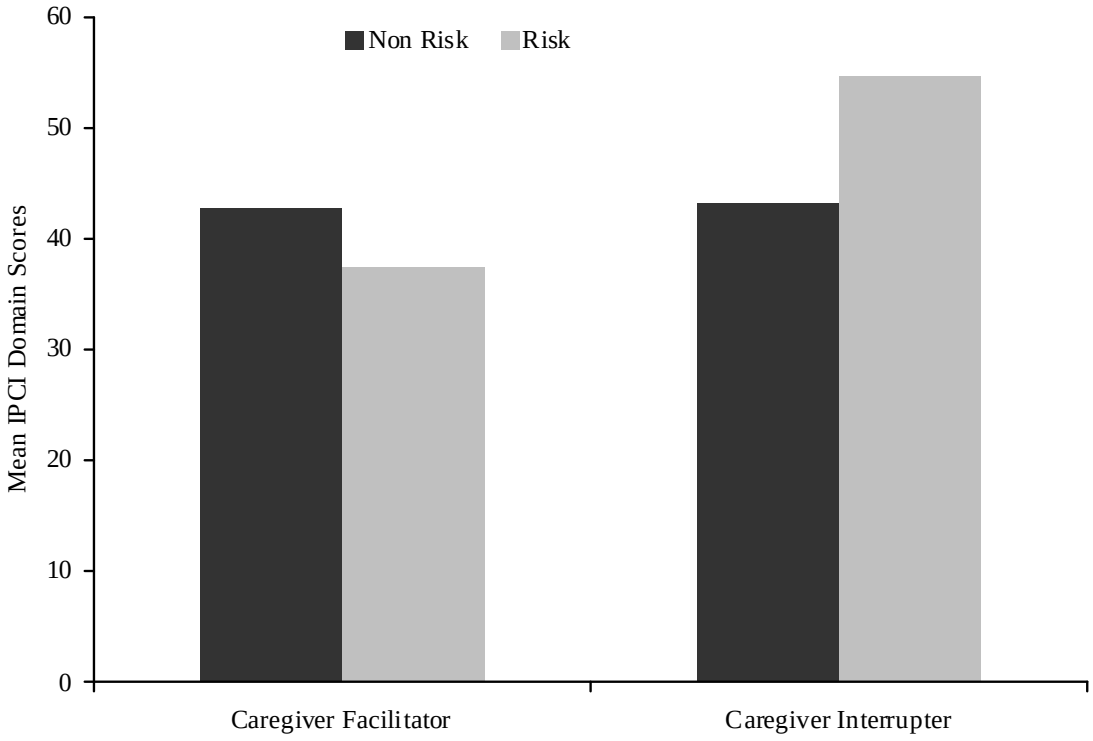

Figure 3. Mean IPCI Scores for CAPI Abuse Risk and Non-Risk Group.

The hypothesis that interaction patterns of mothers with high levels of parental stress had relatively more frequent interruptions and less responsiveness in the context of the interaction was partially supported. Figure 4 show the mean domain scores for the mothers in the clinically significant levels of stress range on the PSI/SF and the mothers who scored in the typical range on the PSI/SF Total Stress (TS) Scale. Fourteen mothers scored within concern range on the PSI-SF TS scale. The mean IPCI Caregiver Facilitator scores for the mothers in the concern range on the PSI/SF was 33.45% (SD = 10.14%). The mean Caregiver Interrupter scores for mothers in the concern range was 57.14% (*SD* = 22.37%). Mothers who scored in the typical range on the PSI-SF TS scale had mean Caregiver Facilitator scores of 44.05% (*SD* = 15.68%) and mean Caregiver Interrupter scores of 42.46% (*SD* = 25.29%). The difference in Caregiver Facilitator scores was significant ($p < .03$), the difference in Caregiver Interrupter scores was not significant ($p < .06$).

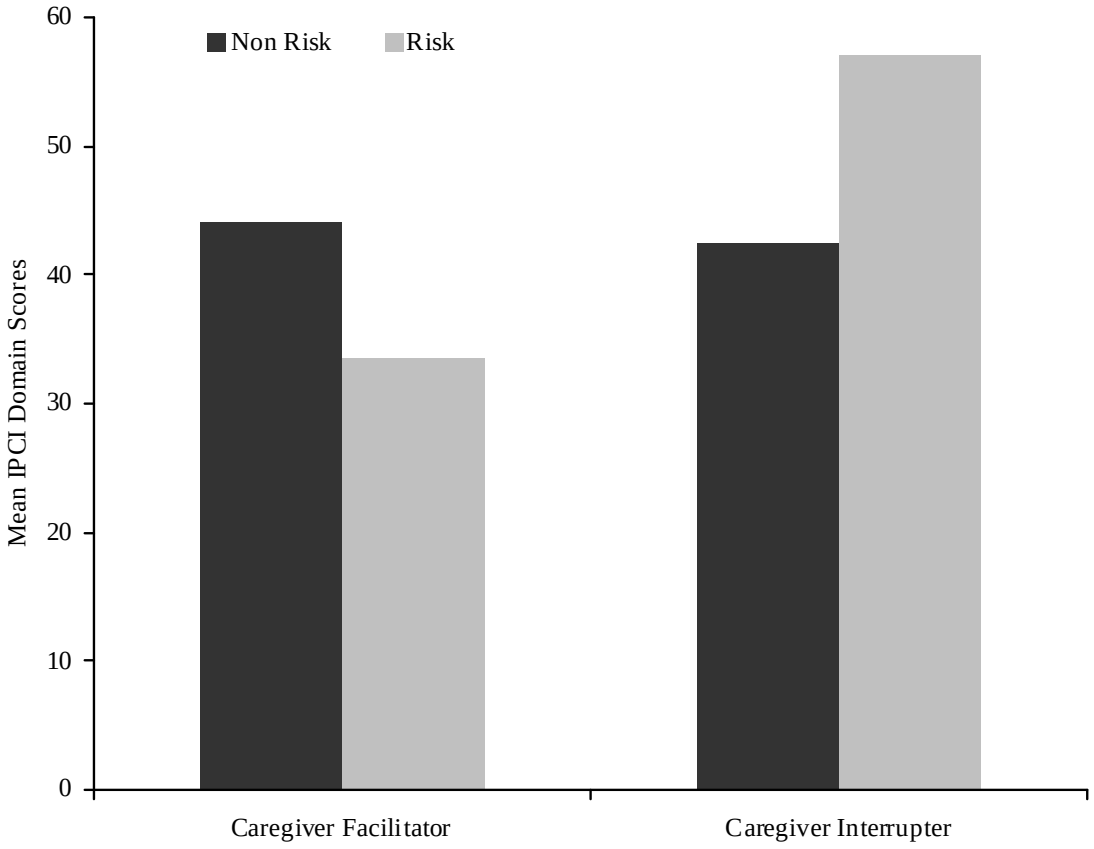

Figure 4. Mean IPCI Scores for PSI-SF Total Stress Scores in Risk and Non-Risk group.

The AAPI Empathy scale was used for examining parental beliefs. The hypothesis that the patterns of interaction for mothers in the at-risk group would show relatively more frequent interruptions and comparatively less responsiveness during interaction was not supported. Figure 5 shows the mean IPCI Caregiver Facilitator and Interrupter scores for the at risk and normal groups on the AAPI Empathy scales. The mean IPCI Caregiver Interrupter score was 51.75% (*SD* = 22.15%) for mothers in the at-risk group (n = 19 and mean Caregiver Facilitator domain score of 36.23% (*SD* = 11.12%). For the mothers in the typical range (N = 38), Caregiver Interrupter mean scores were 43.24% (SD = 26.49%) and Caregiver Facilitator mean scores were 36.23% (*SD* = 11.12%). Neither of these differences was significant.

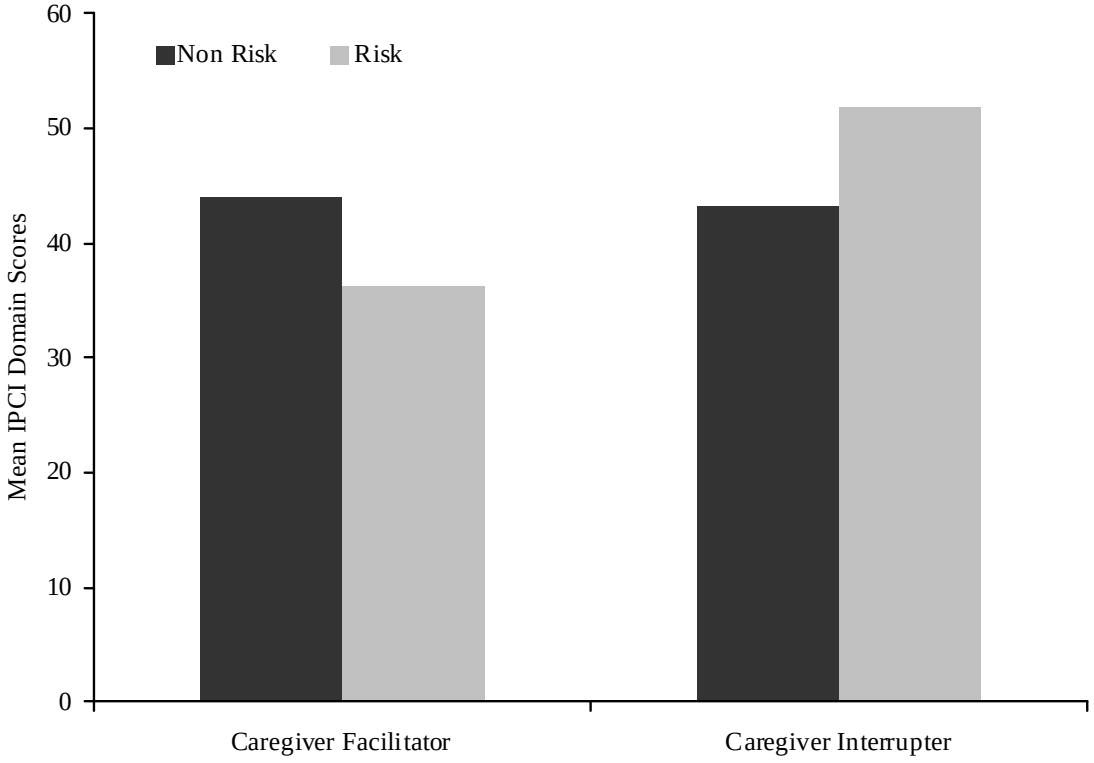

Figure 5. Mean IPCI Scores on AAPI Empathy Scale.

Question 3. How will children's behavior on the IPCI vary depending on their mother's levels of Caregiver Facilitator and Caregiver Interrupter behaviors?

We hypothesize that patterns of Child Engagement and Child Distress behavior will be influenced by levels of Caregiver Facilitator and Caregiver Interrupter behaviors.

The hypothesis that levels of Caregiver Facilitator and Caregiver Interrupter behavior would explain variance in Child Engagement and Child Distress behaviors was supported (see Table 4). Child Distress behaviors during the IPCI session were predicted by the levels of Caregiver Interrupter behavior during the session. ($\beta = .483$, $p = <.001$). Caregiver Facilitator behaviors during the session also predicted levels of Child Distress behaviors ($\beta = -.303$, $p = .023$). This relationship was negative, as Caregiver Facilitator behaviors increased during the session, Childhood Distress behaviors decreased. Caregiver Facilitator behavior was also predictive of Child Engagement behaviors ($\beta = .423$,

$p = .001$). Caregiver Interrupter behavior was not significantly predictive of Child Engagement behaviors ($\beta = -.144$, $p = .291$). The relationship between Child Engagement and Caregiver Interruptive behaviors were negatively (although not significantly correlated). As Caregiver Interrupter behavior decreased, Child Engagement behaviors increased during the session.

Table 4.

Regression Models of Parent and Child Behaviors

Predictors	Predicted	Multiple Correlation	Variance Explained	*F*	*p*
Caregiver Facilitator	Child Engagement	.423	.179	11.800	.001
Caregiver Interrupter	Child Engagement	-.144	.021	1.138	.291
Caregiver Facilitator	Child Distress	-.303	.092	5.475	.023
Caregiver Interrupter	Child Distress	.483	.233	16.427	.001

Question 4. Did mothers who were assigned to the high intensity treatment differ in their parenting behaviors as measured on the IPCI compared to those mothers who were assigned to the low intensity treatment?

The hypothesis that mothers in the high intensity treatment group would have significantly higher levels of Caregiver Facilitator behaviors and significantly lower levels of Caregiver Interrupter behaviors than mothers in the low intensity treatment condition was partially supported. A one-way ANOVA was used to identity any significant low vs. high intensity intervention group differences on the Caregiver domains. One ANOVA was run for each of the parent domains. Mothers in the high intensity group scored significantly higher on the Caregiver Facilitator domain than the mothers in the low intensity group $F(54)= 3.973$, $p = .051$. The two groups were not significantly different on the Caregiver Interrupter domain $F(54)= .640$, $p < .43$.

Discussion

The purpose of the current study was to see if patterns of interaction between parents and their children could be predicted based on parent reports of stress and potential for child maltreatment. Parent behaviors were examined using the observational IPCI measure, while reports of stress and potential for maltreatment came from parental reports on the CAPI Abuse Scale (Milner, 1980), the PSI-SF Total Stress Scale (Abidin, 1983), and the AAPI Empathy scale (AAPI-2; Bavolek & Keene, 2001). The current study examined whether mothers who scored in the "at-risk" range on the CAPI Abuse Scale, the AAPI Empathy Scale and the PSI Total Stress Scale would demonstrate more frequent interruptions and less responsiveness with their children as rated on the IPCI. The results showed generally that parents who scored in the risk ranges on the CAPI Abuse Scale, the AAPI Empathy Scale, and the PSI Total Stress Scale sometimes were different than those who scored on the typical range on these self-reported measures of risk. Generally, parents who in the at-risk range on these measures had lower scores on the IPCI Caregiver Facilitator domain and higher scores on the IPCI Caregiver Interrupter domain. . Although many of the mean differences were not statistically significant, they do have meaning. For children whose mothers are scoring in the at risk range on the standardized measures they are receiving more harsh tones, more criticism, and higher levels of restriction from their parents. Likewise, children whose mothers are scoring at risk on the standardized measures are receiving less warmth, acceptance and a decreased level of stress reducing strategies used when the child is upset.

Caregiver behavior during the IPCI session influenced child behaviors. Generally, when parents were observed to engage in less frequent facilitator behaviors, children were observed to engage in more frequent distress behaviors. Similarly, when parents were observed to engage in more frequent interruptions, children were observed to demonstrate more frequent distress behaviors and less frequent positive engagement.

Mothers who were randomly assigned to the high intensity treatment group showed significantly higher IPCI ratings on Caregiver Facilitator behaviors than mothers who were in the low intensity group. Caregiver Interruptive behaviors were not significantly different in the high and low intensity treatment groups. Specific behaviors that are the focus of IPCI ratings of Caregiver Facilitation (e.g., descriptive language, following the child's lead, stress reducing strategies) were all behaviors that were targeted by the intervention delivered to mothers in the high intensity treatment group. The statistically significant difference between these two groups suggests that the intervention did make a difference in influencing the parenting behavior of mothers in the high intensity treatment group. Additional research is needed to examine if the intervention modules are the reason behind this change.

Limitations of the Current Study

A limitation of the current study was the small sample size of mothers who completed the 24 month assessment. Partly due to the environmental factors as described above (e.g., poverty, substance use, parenting stress, etc.), the mothers were frequently transient and therefore could not always be contacted for follow-up assessments. If more

the 97 original mother/child dyads had continued in the study, the power might yield significant mean differences in scores.

Another limitation of the current study was that while the IPCI is an observational measure, the other measures used were all self-report measures and in the larger study none of the validity scales that would detect faking good, faking bad, and lying were not administered. Thus, there is no psychometric way of determining whether parents' reports on these measures were truly accurate. In future research, the validity scales of the CAPI should be administered and analyzed.

A third limitation of the current study was the exclusive focus on participation in this study from a low-socioeconomic groups. Although low SES families are not the only ones who have abuse occurring in their homes, they are more often referred and identified for investigation of child abuse since they typically have more involvement with community agencies and services (Asawa, Hansen, & Flood, 2008; Berger, 2004; Eamon, 2001; Eamon & Zuehl, 2001, McDaniel & Slack, 2005; Peterson, Ewigman, & Vandiver, 1994; Whipple, 1999). Future research is needed to see if these same types of interaction patterns would hold true for middle to upper class SES groups.

Future Research

Data for the current study was taken only from the 24 month assessment that was conducted with mothers and their children. In the future, a more longitudinal look at the relations between the IPCI measures and the self-reported measures of risk should be undertaken. This will allow for a better understanding not only of the ways parent behavior changes over time in the context of an intervention that varies in intensity but it

will also allow for a more thorough understanding of how measures that identify potential for child maltreatment change as well.

Implications for Practice

The IPCI was never designed to predict child abuse potential in parents. The purpose of the IPCI is as a progress monitoring tool that can be administered quickly, easily, and frequently to target specific behaviors that warrant intervention and change. When parents are asked about a behavior, it is much easier for them to report a change in behavior whether or not that is how they act out a specific behavior. For example, it is easy for a parent to tell a home visitor or interventionist that they consistently hug and soothe the child when the child becomes distressed; however, when the child is put into a distress situation (as with the IPCI distraction task), the behavior observed may differ from the parent report. The IPCI provides direct feedback to parents on specific behaviors that need to be changed and can show the parent progress as those behaviors are addressed in intervention. While the standardized measures may not show incremental changes in behavior, the IPCI can identify those small behavior changes as they occur.

Understanding the associations between parenting stress, parenting beliefs, and parenting behaviors during parent-child interactions is critical to furthering our knowledge of how to prevent child maltreatment. This research suggests that similar studies with larger samples may successfully contribute to the vital goal of reducing the incidence of child abuse and neglect in our country.

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Appendix A

Copy of IPCI Scoring Definitions

General Scoring Procedures

Immediately following an administration of IPCI interaction activities, the IPCI rating sheet (including the Cover Page) is completed.

Each item is rated on a 4-point scale of relative frequency [i.e., 0 = Never; 1 = Rarely (Mild); 2= Sometimes/Inconsistent; and 3 = Often/Consistently (Severe)]. A score of Rarely is reserved for sessions containing a single instance of a coded behavior. A second occurrence would change the score from Rarely to Sometimes. Furthermore, a score of Often is reserved for frequent instances of a coded behavior that occur in all IPCI assessment activities or behaviors that are infrequent but severe in the case of interrupter items. The IPCI rating form contains brief guidelines as to what scores are appropriate.

Parental Caregiver Interrupters and Child Distress are rated with regard to relative frequency as well as severity. If there is a discrepancy between relative frequency and severity, then the highest number possible is assigned. For example, if a Parental Caregiver Interrupter occurs once but is severe as specified in the item definition, then a rating of '3' [Often/Consistently (Severe)] is assigned. If a Child Distress behavior occurs frequently but is mild in nature, a rating '3' is assigned.

Do not score parent or child behaviors that occur while giving task directions; code only behaviors that occur during the timed portion of the tasks.

To enhance and maintain inter-rater reliability, the IPCI item definitions in this manual should always be referenced when scoring. For each IPCI item, a definition is provided, examples and non-examples are presented, and a scoring hint is included. While the rating sheet includes brief item labels, complete definitions are provided in the manual.

To maximize rating accuracy, it is helpful to use tally marks on the rating sheet next to each IPCI item when an example of that item is observed.

To obtain IPCI scoring certification, 2 out of 3 consecutive IPCI sessions must be rated with each score meeting the following criteria: (1) each overall rating is at or above 80% agreement with a gold-standard rater, and (2) the total Parent-Caregiver and total Child ratings are each at or above 70% agreement with a gold-standard rater. Once certification is obtained, inter-rater reliability should be checked periodically to maintain reliability.

Item Definitions and Scoring

Parent or Caregiver (P/C) Domains

P/C Facilitators

1. **Conveys Acceptance and Warmth**

The adult conveys acceptance and warmth through approval in any of the following ways:

- Smiling at the child
- Making a positive comment **to** or **about** the child
- Providing gentle, affectionate touch.
- Agreeing with something the child has said
- Indicating that the child's behavior is correct
- Confirming what the child has just said
- Thanking the child for something
- Stating the child made a good effort, even if the task was not performed correctly

Watch for clear and appropriate signals of acceptance and warmth. If a parent gives a verbal and nonverbal message simultaneously, these messages must match and be positive to be an example of this item.

A positive comment with a flat expression, frowning, or negative voice tone is not an example of Conveys Acceptance and Warmth. A negative comment while smiling or laughing is also not an example of Conveys Acceptance and Warmth.

Smiling or laughing inappropriately (such as when a child is hurt, upset, engaging in unsafe behavior, or in a behavior that is not appropriate) is not an example of Conveys Acceptance and Warmth.

Simply holding or touching a child in the context of a general routine does not necessarily convey acceptance and warmth and therefore is not an example of this item.

Examples of Conveys Acceptance and Warmth:

- ✧ Mom smiles as she says, “Good job, you did it all by yourself!”
- ✧ Grandma smiles and in a happy, excited voice tone says, “Oh, those are soft touches to that furry doggie.”
- ✧ Dad giggles and says, “Wow, look at you go!” as child begins to crawl or walk.
- ✧ Caregiver picks up a crying child and in a concerned and comforting voice says, what’s wrong, honey?

Non-Examples of Conveys Acceptance and Warmth:

- ✧ Mom says, “Yeah, you finally did it.” in a flat voice tone as she rolls her eyes.
- ✧ The child becomes frustrated during play and mom laughs.
- ✧ Child throws a toy across the room and Dad smiles and then says, “How many times have I told you not to do that?”

☺ **Scoring Hint:** While you are observing, make a tally mark on the rating sheet near Conveys Acceptance and Warmth each time you observe an example that meets the definition above. When you are ready to rate this item after the observation, count the number of tally marks you have made and consider these as well as consistency across activities before rating this item.

2. Uses Descriptive Language

This item includes adult descriptive comments that meet at least one of the following criteria:

- ❖ The comment both labels and connects objects and actions (e.g., "The wheels go round"—**not** "Those are wheels.").
- ❖ The comment labels and connects nouns and adjectives ("There's that furry, brown bear.").

The adult describes activities, objects and/or child's behavior or feelings. This item does not refer to negative descriptive statements about the child or child's behavior (e.g., "That's mean, don't be a bad boy," "You're going to hurt yourself", etc.).

This could include the use of rhetorical questions as long as they do not have a negative connotation (e.g., "Are you holding your teddy bear?").

During the book activity, this item should be rated based on the parent's use of descriptive language and imitation or expanding on the child's interests. Simply reading, without any other descriptive comments to the child, is not an example of Uses Descriptive Language.

> Keep in mind that it is possible for adults to talk a lot but not use descriptive language. This is sometimes referred to as 'impoverished talk'. Simply making sounds, repeating words, making brief statements that do not fit the above criteria are not examples of Uses Descriptive Language.

Simply naming colors, counting, or naming objects in a room are not examples of Uses Descriptive Language.

Examples of Uses Descriptive Language:

- ✧ Child points to a dog and Mom says, "Yes, that's a doggie. You see the brown doggie."
- ✧ Child reaches for a cup and Dad asks, "You want a drink from your sippie cup?"
- ✧ Child is looking at a book and Auntie says "You see the duck. The duck says 'quack, quack'."
- ✧ Mom notices that child looks sleepy and asks, "You're rubbing your eyes. Are you sleepy?"
- ✧ Dad asks in a playful voice "Why are you hiding behind that blue chair?"

Non-Examples of Uses Descriptive Language (parent does not connect nouns with actions or adjectives):

- ✧ "See it." "Do it."
- ✧ "Say one."
- ✧ "Put it there." "That one."
- ✧ "The orange one." "Say, red"
- ✧ "What are you doing with that book?"
- ✧ "What are you looking at?"

☺ **Scoring Hint:** During the observation, use tally marks or write down key words next to Uses Descriptive Language on the rating sheet each time you hear an example. It is helpful to write a key word the first time you hear an example. If descriptive language is infrequent, then continue to write key words. If it is frequent, use tallies. Before you assign a rating, count these examples and consider consistency across IPCI activities.

3. Follows Child's Lead

The parent follows the child's lead by noticing what interests the child and either comments on the child's interest or joins in the same activity without interrupting the child. However, the parent does not interrupt the child or redirect child's behavior. Follows the Child's Lead can occur in the context of routines in which the parent may be taking a more active role than in play. For example, the parent who notices and comments on the child's focus and what is happening during dressing can be an indicator that the parent is following the child's lead. However, this must be done in a non-intrusive manner to be an example of this item.

- ❖ The parent may introduce an activity and make suggestions, but the score for Follows the Child's Lead focuses on his or her behaviors of attending, imitating, joining, turn-taking, and/or commenting appropriately on the child's interest.
- ❖ The parent may comment on what the child is doing. If the comment is descriptive, it would also be an example of Uses Descriptive Language. If in addition, the comment is positive and affirming of the child, it would also be an example of Conveys Acceptance and Warmth.

Examples of Follows Child's Lead:

- ✧ Child points to a dog and Mom says, "Yes, you see the doggie."
- ✧ Child reaches for toy phone and Dad asks, "You want to talk on the phone?" as he pulls it closer to child.
- ✧ Child is tapping a large ring toy and the parent picks up another ring and says, "Tap, tap, tap," as she taps her ring on the table.
- ✧ Child puts a toy phone up to her mouth and Mom says, "You like that phone."
- ✧ Mom gets out a book to show the child but the child is not interested and turns toward another book. Mom says, "Oh, you want to look at that one," as she pulls the book closer for the child.

Non-Examples of Follows Child's Lead:

- ✧ The child is looking at or reaching for a toy ring and the parent places another toy in front of the child.
- ✧ The child reaches for a toy and Mom begins talking about or pointing to another toy.
- ✧ The child shows interest in a ball by squealing and gesturing for it; the parent does not respond in any way.

- ☺ **Scoring Hint:** During the observation, use tally marks or write down key words next to Follows Child's Lead on the rating sheet each time you hear an example. It is helpful to write a key word the first time you see an example. If Follows the Child's Lead is infrequent, then continue to write key words. If it is frequent, use tallies. Before you assign a rating, count these examples and consider consistency across IPCI activities.
- ☺ **Scoring Hint:** Follows the Child's Lead is following the interests of the child, not extending the activity or conversation further.
- ☺ **Scoring Hint:** Remember, in order to score this item as a '3', the adult must have consistently followed the child's lead without contrary examples in which s/he interrupted the child or missed multiple opportunities to follow the child's lead. If the parent followed the child's lead inconsistently, score a '2', if not, score a '1'. If the parent follows the child's lead once, score a '1'.
- ☺ To be given credit for Following Child's Lead, the parental caregiver must do more than simply avoid restrictions and intrusions. Always consider the presence of Restrictions and Intrusions before rating Follows Child's Lead. Using Restrictions or Intrusions directly interferes with Follows Child's Lead. If you observe Uses Restrictions, Intrusions more than 1 time during the observation, then it should be reflected in the rating for Follows Child's Lead. For example, if you observed 2 examples of Uses Restrictions, Intrusions, do not rate Follows Child's Lead above a '2.'

4. Maintains or Extends Child's Focus

The adult introduces materials or interacts in a novel or interesting manner to maintain and/or extend the child's focus. The adult uses words, voice tone, facial expressions, and gestures in an interesting way to engage the child in a manner that maintains the child's focus or slightly extends the child's focus.

Maintains or Extends Child's Focus is a higher order skill than simply Follows Child's Lead. To meet the definition of Maintains or Extends Child's Focus, the adult's behavior must be interesting **and** not disrupt the child's focus of attention.

Developmental appropriateness of the parent's behavior must be considered when rating this item. In order to rate this item as present, the behavior described herein must be novel or interesting and it must be developmentally appropriate.

Attempts to stimulate development that are far beyond the child's development level are **not** examples of Maintains or Extends Child's Focus. Keep in mind that what may be novel or interesting the first time it is introduced, may not continue to be novel/interesting when repeated.

Watch for the adult to introduce new activities either when the child is not already showing interest in another activity or for the adult to introduce an activity that builds on the child's interest.

Note: Simply introducing a new activity without consideration to the child's interest is not an example of Maintains or Extends Child's Focus. Requires scaffolding language (e.g., speaking in a language that the child can understand but that will still challenge them or help them learn and grow).

Examples of Introduces to Maintains or Extends Child's Focus:

- ✧ The child reaches for a toy phone and begins to vocalize. Mom says, "Yes, let's call Grandma," as she moves the phone within the child's reach. [Mother extended child's play by expanding on the vocalization and reaching for the phone.]
- ✧ The child is engaging in pretend play with a toy barn. As the child picks up one the duck figure, Dad says, "'Quack, quack.' Let's feed the animals." [Dad extends the child's play by giving the child sounds for the animal to say and introducing a new activity related to the general play theme.]

Non-Examples of Introduces to Maintains or Extends Child's Focus:

- ✧ The child is looking at or reaching for a toy ring and the adult places another toy in front of the child.
- ✧ The child is playing with a toy barn and the parent sits beside the child quietly watching but does not engage with the child in play.
- ✧ When Mom says, "Let's look at books," the child picks up one book. Mom says (in reference to another book), "Let's look at this one instead."
- ✧ Child is fussy and mom shakes a rattle in front of child's face.

☺ **Scoring Hint:** During the observation, use tally marks or write down key words next to Maintains or Extends Child's Focus on the rating sheet each time you hear an example. It is helpful to write a key word the first time you see an example. If Maintains or Extends Child's Focus is infrequent, then continue to write key words. If it is frequent, use tallies. Before you assign a rating, count these examples and consider the consistency across IPCI activities.

5. Uses Stress Reducing Strategies

If a child shows frustration or distress, the parent responds appropriately through the following strategies

- **If the child shows distress/crying,** the parent uses soothing behaviors that include providing a pacifier, cradling, or rocking. With an older child, parent behaviors would include gentle touch, words acknowledging child's feelings, and words of comfort/support. However, comforting words alone (without physical comfort) are not sufficient for an infant. Remember, words of comfort alone with an infant will affect the Warmth/Acceptance rating.
- **If the child shows frustration/aversion cues,** the parent responds by providing one of the following strategies: slowing pace, using softer voice, providing a brief pause in interaction, or with older infants using appropriate distractions. Early signs of distress include gaze aversion (turning face or eyes away when a parent is trying to get the child to look at her face or a toy), increased activity level, rapid breathing, or fussy sounds. Watch for the parent to respond immediately to these signals by slowing pace, using a softer voice, or becoming quiet. With older infants/children, parents may use distraction appropriately (e.g., helping the child become interested in another activity).

Simply introducing new toys or materials to a young infant (under 6 months) who is showing aversion or distress cues is not an example of appropriate distraction. Similarly, after attempting to introduce a new activity once or twice with an older infant or young child, repeating this behavior is not an example of appropriate distraction.

General words of affection or comfort without steps to comfort are not examples of Stress-Reducing strategies. Instead, watch for slowing pace, using a softer voice, and with an infant providing physical comfort).

** If the child does not show any aversion/frustration cues **or** distress, then 'No Opportunity' (NA) should be checked. If the child shows aversion/frustration cues but not overt distress such as crying, then rate this item based on the parent's response to aversion/frustration cues. Follow the same principle if the child shows overt distress, but not earlier signals of aversion/frustration. If the child shows both aversion/frustration cues as well as distress and the parent engages in appropriate strategies to one of these (e.g., distress/crying) but not the other (e.g., aversion/frustration cues) and the parent had an opportunity to respond, this item should be rated less than a '3'.

Examples of Uses Stress Reducing Strategies:

- ✧ In response to an infant crying, Dad picks up the infant, cradles the infant quietly, provides a pacifier, and begins rocking.
- ✧ A toddler turns away from the book that the mother has attempted to re-engage the child by pointing and talking about a picture; Mom says, "Let's take a break and we can look at books later."
- ✧ A child begins to whine and cry when he becomes frustrated because Auntie removed a phone (that the child was attempting to play with) and placed it out of reach. Auntie quietly says, "That's for grown-ups, let's find something for you to play with," as she leads child gently by the hand to find an appropriate activity.

Non-Examples of Uses Stress Reducing Strategies:

- ✧ An ***infant*** begins to cry and mom picks up baby and says "What's wrong? Shh." In a gentle voice without any other intervention.
- ✧ After a few minutes of face to face play, an older infant begins to fuss. Mom quickly places a series of toys in front of the baby, shaking each toy and talking in an animated voice as she attempts to interest child in the toys.
- ✧ A ***toddler*** is running, falls down and skins his knee. Mom says "You're okay."

☺ **Scoring Hint:** Always consider opportunities for Uses Stress Reducing Strategies. Reserve a rating of '3' for situations in which the caregiver consistently recognizes signs of distress (including subtle signals of frustration and disinterest) and responds consistently with specific stress-reducing strategies described above. If the parent consistently responds to obvious signs of distress with stress reducing strategies, but misses opportunities to use stress reducing strategies in response to subtle signs of distress (such as gaze aversion, disinterest, frustration), do not assign a rating above a '2.' During the observation, use tally marks or write down key words next to Uses Stress Reducing Strategies on the rating sheet each time you hear an example. It is helpful to write a key word the first time you see an example. If Uses Stress Reducing Strategies is infrequent, then continue to write key words. If it is frequent, use tallies. Before you assign a rating, count these examples and determine approximately what proportion of the opportunities to address child distress to which the parent responded.

Parent or Caregiver Interrupters

1. Uses Criticism or Harsh Voice

For this item, as well as each of the Interrupter items, consider both frequency **and** severity when rating Interrupters. **If there is a disparity between frequency and severity, use the higher score** to rate the item (e.g., single episodes of a parent calling a child a name, using a derogatory label, or making emotional threats such as "I'm going to leave you;" "I don't want you anymore," or using anything more than the most mild physical force) should **automatically** be rated as a '3' due to severity even though it only occurs once.

Watch for name-calling, sarcastic tone of voice, yelling, raised voice, or critical statements about the child.

While parent behaviors directed to a child other than the target child are not usually scored, if the parent uses a harsh tone of voice with another child, do score it, because the target child was exposed to this parent behavior.

Avoid trying to 'interpret' a parent's meaning with this item. Enter a tally mark if you observe any of the behaviors listed. It is possible for a parent to make a very demeaning statement while laughing or dismissing the comment. Avoid looking for reasons to dismiss criticism or harsh voice. Instead, refrain from making a judgment about intent or meaning behind such statements and simply make a tally to note that it occurred.

It can be helpful to consider the parent's baseline voice tone with you and other adults. Using a flat or monotone voice without warmth is not an example of this item. There must be a criticism in words and/or a raised and harsh tone of voice.

Examples of Uses Criticism or Harsh Voice:

- ✧ A consistent child care provider says in an angry tone, "How many times do I have to tell you... (not to do that, etc.)
- ✧ A Mother says, "You're so rotten," as she laughs.
- ✧ A Father says in an angry, rough voice, "Look at me when I talk to you."
- ✧ A Mother says, "Why can't you ever do what I tell to you to?"
- ✧ A Mother says sarcastically, 'You're just my favorite child'.

Non-Examples of Uses Criticism or Harsh Voice:

- ✧ A mother maintains a flat tone devoid of warmth throughout the observation.
- ✧ Using a firm voice, a mother says, " use a gentle touch"

☺ **Scoring Hint:** For this item, a single critical statement should be scored a '3' if it is severe (e.g., calling the child a name, belittling the child, threatening to abandon or withhold love). To score a '1,' the statement must be mild and occur only once.

2. Uses Restrictions/Intrusions

Restrictions include statements such as “No, Don’t, Stop, Quit”. They also include repeated vague warnings such as “Watch out,” “Be careful.” If you hear a vague warning once, disregard it. If you hear it more than once, make a tally for each time thereafter.

Intrusions include taking things away unnecessarily, controlling child’s movement unnecessarily, using physical discipline, or pushing objects in front of a child’s face. Consider both frequency and severity. A rating of ‘3’ should be assigned if mild restrictions are used frequently. A rating of ‘3’ should also be assigned if only 1 restriction is observed but it is severe (e.g., slapping a child’s hand, yanking a child away from a toy).

Examples of Restrictions/Intrusions:

- ✧ The child is playing roughly and the parent says “Be careful,” on several occasions without providing any other support.
- ✧ Mom pulls a clean toy ring out of baby’s mouth. [Unnecessary because there were no safety concerns.]
- ✧ Baby begins to mouth a baby board book and Dad says, “Get that out of your mouth,” and pulls the book away.
- ✧ The child is reaching for an ashtray on the coffee table and Mom slaps the child’s hand.
- ✧ The toddler reaches for a door knob and Mom says, “No, stop it.”
- ✧ The child is trying to climb up on a table top. The Mom roughly pulls the child down.

Non-Examples of Restrictions/Intrusions:

- ✧ Child is reaching for something inappropriate and mom says in a firm but kind voice, “Oh, you can’t have that, it’s not safe”, as she leads child away and to a safe activity.
- ✧ The child is trying to climb up on a table top. The Mom gently helps the child down and says, “You need to come down, you could get hurt up there. Let’s play with your blocks on the floor.”

- ☺ **Scoring Hint:** Remember, for this item as well as for each Interrupter item, consider both frequency and severity. **If there is a disparity between frequency and severity, use the higher number** to rate the item (e.g., single episodes of hitting a child, or using anything more than the most mild physical force should **automatically** be coded as 3.
- ☺ For this item, a single intrusion should be scored a '3' if it is severe (e.g., slapping, roughly yanking a child backward). A rating of '3' would also be given if intrusions are frequent but mild. To score a '1,' the intrusion or restriction must be mild and occur only once.

3. Rejects Child's Bid

This item includes words or gestures the parent uses (specifically in response to the child's search for support, help, or attention from the parent) that **explicitly** convey that the child is not to interrupt the parent or seek the parent's attention or physical support (e.g., motioning the child to go away from the parent or pushing the child away, saying "Not now," or "I don't want to play with you," pulling away from a child who is seeking a hug, or blatantly ignoring a child's request for help or attention).

Another example of Rejects Child's Bid is if a parent taunts or teases a child with a toy, holding it out to the child and then withdrawing it when the child reaches for it. This should only be coded in this category if the parent continues the behavior in the case of child distress. For example, if both the child and the parent are laughing, this is a turn-taking game instead of taunting.

Remember to consider severity not simply frequency. One severe rejection would be scored a '3.' If the child does not seek the parent's attention or approval through gaze, vocalization, comment, soft touch, approach, or smile (hence providing No Opportunity for the parent to respond), 'No Opportunity' (NA)should be checked.

Examples of Rejects Child's Bid:

- ✧ Child tries to show Mom a picture and Mom pushes child away.
- ✧ Child brings a cup to Mom for water and Mom says "I told you, no. You're not getting any."
- ✧ Child brings toy to Dad, and Dad says "Go away, can't you see I'm busy?"
- ✧ A caregiver holds out a teddy bear to a child but then takes it back when the child reaches for it. (When the child reached for the toy, this was a bid, which was clearly rejected when the caregiver pulled they toy back out of the child's reach. Note that because the caregiver offered the toy and then pulled it back, this is taunting, which is quite different than taking something unsafe or inappropriate from a child. Keep in mind also that if the child was able to put his/her hands on the teddy bear before the parent pulled it away, this would also be an example of Restrictions/Intrusions).

Non-Examples of Rejects Child's Bid:

- ✧ The parent uses a harsh tone and engages in very few facilitative behaviors but does not reject the child's bid for attention.
- ✧ The child does not make any attempt to seek the parent's attention.
- ✧ Rather than being engaged in a mutual activity, the child and the parent are interacting side by side during the assessment and the child does not attempt to make a bid for the parent's attention.

☺ **Scoring Hint:** Remember to score 'No Opportunity' if the child does not seek out the parent's attention. To score the presence of Rejects Child's Bid, the child **must** make a bid (attempt to get the parent's attention through words or gestures).

Child (Ch) Domains

Engagement

1. Positive Feedback

Child provides positive feedback to parent through positive social signals such as appropriate smiling or laughing, eye contact, vocalizing, words, or gentle touch. This item does **not** reflect a child passively looking at a parent who is not engaged with the child.

In rare cases, a young infant may have no opportunity to provide positive feedback to the parent because the parent is physically unavailable (such as an infant lying on his or her back who cannot see the parent's face due to parent positioning). In such rare cases, 'No Opportunity' (NA) should be checked.

Examples of Positive Feedback:

- ✧ The baby smiles and coos as Mom shows a book to the baby.
- ✧ The baby wiggles arms and legs and vocalizes when Dad leans over the baby and smiles.
- ✧ The child leans into the parent, giving a hug, and smiling.

Non-Examples of Positive Feedback:

- ✧ The child focuses visually on a book but does not provide any positive feedback.

☺ **Scoring Hint:** With a toddler or slightly older child, reserve a rating of '3' for frequent, clear expressions of positive feedback. For example, occasional smiling interspersed with frequent whining, crying, and refusals, should never be rated as a '3.'

2. Sustained Engagement

Child engages in an activity for a sustained length of time. Consider both social and non-social engagement with toys or materials. For older infants and young children, the child must be **actively engaged** (e.g., reaching for, looking at/turning pages of a book, manipulating objects, etc.). This item does not include an older infant or child sitting and passively watching others interact. **However, for very young infants, this item does include sustained visual attention to toys, materials, or face**. Watch for at least 30 seconds of sustained attention to parent's face or materials. Simply looking around a room is not an example of this item.

Examples of Sustained Engagement:

- ✧ The baby focuses on a board book for at least 30 seconds by reaching, grasping, intent focus, or attempting to turn pages.
- ✧ The child plays with toy house for at least 30 seconds before switching focus.
- ✧ Baby watches Mom playing peak-a-boo for at least 30 seconds.

Non-Examples of Sustained Engagement:

- ✧ The child watches the parent while parent sits on couch without looking at the child and without interacting.

☺ **Scoring Hint:** Use tally marks to note instances of 30-second or more intervals of sustained attention. Count these and consider consistency across IPCI activities before scoring.

3. Follow Through

When, and if, the parent attempts to engage the child or requests action, the child follows through by vocalizing, gesturing, or attempting the task. For very young children, follow through could include imitating a smile or vocalization of the parent. This item assesses the extent to which the child follows through and responds to the parent's attempt to engage the child.

Watch for the child to follow a parent's instruction, follow through with a verbal request or a clear non-verbal cue that is paired with a verbal request or instruction.

Examples of Follow Through:

- ✧ In response to Mom smiling and expanding on the baby's vocalization, the baby smiles and vocalizes.
- ✧ The mom puts a toy in a box and says, "Let's put them away," and the child begins to pick up toys.
- ✧ The dad claps his hands and says, "You do it," as he models clapping and child claps her hands.
- ✧ The auntie says, "You can do it, get that bunny," and the child reaches for the bunny but doesn't quite grasp it.

Non-Examples of Follow Through:

- ✧ Mom says, "Let's play 'Peek-a-boo,'" and holds her hands up to her eyes as child watches.

☺ **Scoring Hint:** Use tallies if and when you observe Follow Through. Count these and consider consistency across IPCI activities before assigning a rating.

Child Reactivity/Distress

1. Irritable/Fuss/Cry

This item reflects both clear signals of fussiness and crying and unclear, difficult-to-read signals. Watch for fussing, whining, crying, or signals that change quickly and may be difficult to understand. The child's signals may shift rapidly to whimpering, fussing or crying with little warning. Note the child's body language, facial expressions, and vocalizations when coding this item. Consider how the child recovers from stressors. Uncontrollable or inconsolable crying are examples of this item. Difficulty calming after a stressor is also an example of this item.

If the child fusses or cries, even if it is due to a clear environmental stressor, this should be reflected in the scoring.

Examples of Irritable/Fuss/Cry:

- ✧ The dad and child are playing peek-a-boo and the child begins to cry.
- ✧ Mom is reading a book to the child and the child begins to fuss and whine.
- ✧ During toy play, it is difficult to tell if the child's vocalizations are signals of enjoyment or distress.

Non-Examples Irritable/Fuss/Cry:

- ✧ The dad and child are playing peek-a-boo and the child says, "No more, want book."
- ✧ The mom is playing patty cake with the child, and the child smiles and giggles in response.

☺ **Scoring Hint:** Make a tally mark next to this item, each time you see an example during the observation. Count these and consider consistency across IPCI activities before scoring.

2. External Distress

Child engages in a tantrum, or aggressive behavior (hitting, biting, kicking, throwing objects, spitting, head-banging, screaming, verbal or nonverbal social rejection, name-calling, derogatory language, or threats). Non-compliance alone (simply not following through) is **not** an example of externalizing behavior.

Similarly, saying 'No' unless it is repeated and is combined with another behavior such as yelling or screaming is not an example of External Distress. This item does not include a child who simply turns eyes and/or head away from interaction or fails to follow the parent's instructions.

Examples of External Distress:

- ✧ The mom tries to show child book and child throws book at Mom.
- ✧ The mom say it's time to get dressed and child screams no as she turns away.

Non-Examples of External Distress:

- ✧ Mom says, "Let's put your shoes on," and child pulls his foot away.
- ✧ Mom says, "It's time to get dressed," and child says "No" as she turns away.

☺ **Scoring Hint:** If a child engages in biting or head-banging, these behaviors should be rated as '3' even if they occur only once.

3. Frozen/Watchful/Withdrawn

Child startles, flinches, or pulls away from the parent or engages in frozen, watchful behavior without joining in the interaction. A child who is simply not engaged in an activity or whose attention shifts to an activity other than where the parent wants the child to focus is **not** an example of this item. Watch for behaviors such as flinching, pulling away, or looking with a frozen/watchful gaze. The behavior should give a clear impression of fear, uncertainty, or avoidance.

Examples:

- ✧ Mom reaches in front of child to pick up a toy and child flinches and ducks.
- ✧ Mom says "Come here," and child startles and then freezes while intently watching the mom.

Non-Examples:

- ✧ Mom says, "Come here," and child does not respond.
- ✧ Mom attempts to engage child in play; the child shows no interest and continues to play with another toy.

☺ **Scoring Hint:** Make a tally mark beside this item for each example observed. Remember to consider severity as well frequency. Observation of a dramatic flinch response should be rated as a '3.'

Appendix B

Copy of IPCI Score Sheet

Indicator of Parent Child Interaction (IPCI)

		Free Play	Looking at Books	Distraction	Dressing	Overall	
Never = Never observed **Rarely** = Observed **once**; Mild **Sometimes** = Observed more than once but not consistently **Often** = Observed consistently and given nearly every opportunity; Severe **No Opportunity** was available		Never Rarely/Mild Sometimes Often/Severe	Never Rarely/Mild Sometimes Often/Severe	Never Rarely/Mild Sometimes Often/Severe	Never Rarely/Mild Sometimes Often/Severe	Never Rarely/Mild Sometimes Often/Severe	0 1 2 3
Caregiver Facilitators	Acceptance/ Warmth						
	Descriptive Language						
	Follows Child's Lead						
	Maintains/ Extends						
	Stress Reducing Strategies	No Opportunity X	No Opportunity X	No Opportunity X	No Opportunity X	No Opportunity X	X
Caregiver Interrupters	Criticism/ Harsh Voice						
	Restrictions/ Intrusions						
	Rejects Child's Bid						
Child Engagement	Positive Feedback						
	Sustained Engagement						
	Follow Through	No Opportunity X	No Opportunity X	No Opportunity X	No Opportunity X	No Opportunity X	X
Child Reactivity/ Distress	Irritable/Fuss/ Cry						
	External Distress						
	Frozen/ Watchful/ Withdrawn						

Appendix C
CAPI

CAP Inventory Form IV

The next section includes a series of statements which may be applied to yourself. After I read each of the following statements, answer whether you agree or disagree with each statement.

		Agree	Disagree
E1.	I have always been strong and healthy……...	A	DA
E2.	I am a confused person……...	A	DA
E3.	People expect too much from me……...	A	DA
E4.	I am often mixed up……...	A	DA
E5.	You cannot depend on others.……	A	DA
E6.	I am a happy person……...	A	DA
E7.	I am often angry inside……..	A	DA
E8.	Sometimes I feel all alone in the world……...	A	DA
E9.	Everything in a home should always be in its place……..	A	DA
E10.	I often feel rejected……	A	DA
E11.	I am often lonely inside……...	A	DA
E12.	Little boys should never learn sissy games……	A	DA
E13.	I often feel very frustrated……...	A	DA
E14.	Children should never disobey……...	A	DA
E15.	Sometimes I fear that I will lose control of myself……	A	DA
E16.	I sometimes wish that my father would have loved me more……	A	DA
E17.	My telephone number is unlisted……...	A	DA
E18.	I sometimes worry that I will not have enough to eat……	A	DA
E19.	I am an unlucky person……..	A	DA
E20.	I am usually a quiet person……	A	DA
E21.	Things have usually gone against me in life……...	A	DA
E22.	I have a child who is bad……	A	DA
E23.	I sometimes feel worthless……	A	DA
E24.	I am sometimes very sad……	A	DA
E25.	I often feel worried……	A	DA
E26.	A child should never talk back……...	A	DA
E27.	I am often easily upset……..	A	DA
E28.	I am often worried inside……...	A	DA
E29.	People have caused me a lot of pain……..	A	DA
E30.	Children should stay clean……	A	DA
E31.	I have a child who gets in trouble a lot……..	A	DA
E32.	I find it hard to relax……..	A	DA
E33.	These days a person doesn't really know on whom one can count...	A	DA
E34.	My life is happy……	A	DA
E35.	I have a physical handicap……	A	DA
E36.	Children should have play clothes and good clothes……	A	DA
E37.	Other people do not understand how I feel……	A	DA

E38.	Children should be quiet and listen……	A	DA
E39.	I have several close friends in my neighborhood……...	A	DA
E40.	My family fights a lot…….	A	DA
E41.	I have headaches……	A	DA
E42.	I do not laugh very much……...	A	DA
E43.	I have fears no one knows about……	A	DA
E44.	My family has problems getting along……..	A	DA
E45.	Life often seems useless to me……...	A	DA
E46.	People do not understand me…….	A	DA
E47.	I often feel worthless……..A		DA
E48.	Other people have made my life happy…….	A	DA
E49.	Sometimes I do not know why I act as I do……...	A	DA
E50.	I have many personal problems…….	A	DA
E51.	I often feel very upset……	A	DA
E52.	My life is good……...	A	DA
E53.	A home should be spotless……	A	DA
E54.	I am easily upset by my problems……..A		DA
E55.	My parents did not understand me……	A	DA
E56.	Many things in life make me angry……...	A	DA
E57.	My child has special problems……...	A	DA
E58.	Children should be seen and not heard……..	A	DA
E59.	I am often depressed……..	A	DA
E60.	I am often upset……..A		DA
E61.	A good child keeps his toys and clothes neat and orderly…….	A	DA
E62.	Children should always be neat…….	A	DA
E63.	I have a child who is slow……..A		DA
E64.	A parent must use punishment if he wants to control a child's behavior…	A	DA
E65.	Children should never cause trouble……..A		DA
E66.	A child needs very strict rules……A		DA
E67.	I often feel better than others…….	A	DA
E68.	I am often upset and do not know why……...	A	DA
E69.	I have a good sex life…….	A	DA
E70.	I often feel very alone……	A	DA
E71.	I often feel alone……	A	DA
E72.	Right now, I am deeply in love……..A		DA
E73.	My family has many problems……..	A	DA
E74.	Other people have made my life hard…….	A	DA
E75.	I laugh some almost every day……...A		DA
E76.	I sometimes worry that my needs will not be met…….	A	DA
E77.	I often feel afraid……A		DA

Appendix D
AAPI-2

Adult-Adolescent Parenting Inventory-2 (AAPI-2)

Below are statements about parenting and raising children. Please decide the degree to which you agree or disagree with each statement by circling one of the responses.

STRONGLY AGREE – Circle SA if you strongly support the statement, or feel the statement is true most or all of the time.

AGREE – Circle A if you support the statement, or feel this statement is true some of the time.

DISAGREE – Circle D if you feel you cannot support the statement or that the statement is not true some of the time.

STRONGLY DISAGREE – Circle SD if you feel strongly against the statement or feel the statement is not true.

UNCERTAIN – Circle U only when it is impossible to decide on one of the other choices.

As you respond to each statement, please keep these points in mind:

1. Respond to the statements truthfully. There is no advantage in giving an untrue response because you think it is the right thing to say. There is really no right or wrong answer – only your opinion.
2. Respond to the statements as quickly as you can. Give the first natural response that comes to mind.
3. Circle only one response for each statement.
4. Although some statements may seem much like others, no two statements are exactly alike. Make sure you respond to every statement.

If there is anything you don't understand, please feel free to ask questions. If you come across a word you don't know while responding to a statement, ask the examiner for help.

		Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
C1.	Children should keep their feelings to themselves.	SA	A	U	DA	SD
C2.	Parents should be able to confide in their children.	SA	A	U	DA	SD
C3.	Spanking teaches children right from wrong.	SA	A	U	DA	SD
C4.	The sooner children learn to feed and dress themselves and use the toilet, the better off they will be as adults.	SA	A	U	DA	SD
C5.	Children who are one year old should be able to stay away from things that could harm them.	SA	A	U	DA	SD
C6.	A certain amount of fear is necessary for children to respect their parents.	SA	A	U	DA	SD
C7.	Children should know what their parents need without being told.	SA	A	U	DA	SD
C8.	Children should be aware of ways to comfort their parents after a hard days work.	SA	A	U	DA	SD
C9.	It's OK to spank as a last resort.	SA	A	U	DA	SD
C10.	"Because I said so" is the only reason parents need to give.	SA	A	U	DA	SD

		Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
C11.	Time-out is an effective way to discipline children.	SA	A	U	DA	SD
C12.	Children have a responsibility to please their parents.	SA	A	U	DA	SD
C13.	There is nothing worse than a strong-willed 2 year old.	SA	A	U	DA	SD
C14.	Children who feel secure often grow up expecting too much.	SA	A	U	DA	SD
C15.	Sometimes spanking is the only thing that will work.	SA	A	U	DA	SD
C16.	Children can learn good discipline without being spanked.	SA	A	U	DA	SD
C17.	A good spanking lets children know parents mean business.	SA	A	U	DA	SD
C18.	Spanking teaches children it's alright to hit others.	SA	A	U	DA	SD
C19.	Children should be responsible for the well-being of their parents.	SA	A	U	DA	SD
C20.	Children should be their parents' best friend.	SA	A	U	DA	SD
C21.	Children need discipline, not spanking.	SA	A	U	DA	SD
C22.	Hitting a child out of love is different than hitting a child out of anger.	SA	A	U	DA	SD
C23.	In father's absence, the son needs to become the man of the house.	SA	A	U	DA	SD
C24.	A good child will comfort both parents after they have argued.	SA	A	U	DA	SD
C25.	A good spanking never hurt anyone.	SA	A	U	DA	SD
C26.	Babies need to learn how to be considerate of the needs of their mother.	SA	A	U	DA	SD
C27.	Letting a child sleep in the parent's bed every now and then is a bad idea.	SA	A	U	DA	SD
C28.	A good child sleeps through the night.	SA	A	U	DA	SD

Appendix E
PSI-S/F

PSI – Short Form

This questionnaire contains 36 statements. Read each statement carefully. For each statement circle the response that best represents your opinion.

Circle the SA if you <u>strongly agree</u> with the statement.

Circle the A if you <u>agree</u> with the statement.

Circle the NS if you are <u>not sure</u>.

Circle the D if you <u>disagree</u> with the statement.

Circle the SD if you <u>strongly disagree</u> with the statement.

For example, if you sometimes enjoy going to the movies, you would circle A in response to the following statement:

I enjoy going to the movies. **SA** **(A)** **NS** **D** **SD**

While you may not find a response that exactly states your feelings, please choose the response that comes closest to describing how you feel. YOUR FIRST REACTION TO EACH QUESTION SHOULD BE YOUR ANSWER. Choose only one response for each statement, and respond to all statements.

SA = Strongly Agree A = Agree NS = Not Sure D = Disagree SD = Strongly Disagree		
D1.	I often have the feeling that I cannot handle things very well.	SA A NS D SD
D2.	I find myself giving up more of my life to meet my children's needs than I ever expected.	SA A NS D SD
D3.	I feel trapped by my responsibilities as a parent.	SA A NS D SD
D4.	Since having this child, I have been unable to do new and different things.	SA A NS D SD
D5.	Since having a child, I feel that I am almost never able to do things that I like to do.	SA A NS D SD
D6.	I am unhappy with the last purchase of clothing I made for myself.	SA A NS D SD
D7.	There are quite a few things that bother me about my life.	SA A NS D SD
D8.	Having a child has caused more problems than I expected in my relationship with my spouse (male/female friend).	SA A NS D SD
D9.	I feel alone and without friends.	SA A NS D SD
D10.	When I go to a party, I usually expect not to enjoy myself.	SA A NS D SD
D11.	I am not as interested in people as I used to be.	SA A NS D SD
D12.	I don't enjoy things as I used to.	SA A NS D SD

D13.	My child rarely does things for me that make me feel good.	SA A NS D SD
D14.	Most times I feel that my child does not like me and does not want to be close to me.	SA A NS D SD
D15.	My child smiles at me much less than I expected.	SA A NS D SD
D16.	When I do things for my child, I get the feeling that my efforts are not appreciated very much.	SA A NS D SD
D17.	When playing, my child doesn't often giggle or laugh.	SA A NS D SD
D18.	My child doesn't seem to learn as quickly as most children.	SA A NS D SD
D19.	My child doesn't seem to smile as much as most children.	SA A NS D SD
D20.	My child is not able to do as much as I expected.	SA A NS D SD
D21.	It takes a long time and it is very hard for my child to get used to new things.	SA A NS D SD
D22.	For the next statement, choose your response from the choices "1" to "5" below. I feel that I am: 1) not very good at being a parent 2) a person who has some trouble being a parent 3) an average parent 4) a better than average parent 5) a very good parent	1 2 3 4 5
D23.	I expected to have closer and warmer feelings for my child than I do and this bothers me.	SA A NS D SD
D24.	Sometimes my child does things to bother me just to be mean.	SA A NS D SD
D25.	My child seems to cry or fuss more often than most children.	SA A NS D SD
D26.	My child generally wakes up in a bad mood.	SA A NS D SD
D27.	I feel that my child is very moody and easily upset.	SA A NS D SD
D28.	My child does a few things which bother me a great deal.	SA A NS D SD
D29.	My child reacts very strongly when something happens that my child doesn't like.	SA A NS D SD
D30.	My child gets upset easily over the smallest thing.	SA A NS D SD
D31.	My child's sleeping or eating schedule was much harder to establish than I expected.	SA A NS D SD

D32.	For the next statement, choose your response from the choices "1" to "5" below. I have found that getting my child to do something or stop doing something is: 1) much harder than I expected 2) somewhat harder than I expected 3) about as hard as I expected 4) somewhat easier than I expected 5) much easier than I expected	1 2 3 4 5
D33.	For the next statement, choose your response from the choices "10+" to "1-3." Think carefully and count the number of things which your child does that bother you. For example: dawdles, refuses to listen, overactive, cries, interrupts, fights, whines, etc.	10+ 8-9 6-7 4-5 1-3
SA = Strongly Agree A = Agree NS = Not Sure D = Disagree SD = Strongly Disagree		
D34.	There are some things my child does that really bother me a lot.	SA A NS D SD
D35.	My child turned out to be more of a problem than I had expected.	SA A NS D SD
D36.	My child makes more demands on me than most children.	SA A NS D SD