Association Between Adult Representations of Attachment and Emotional Availability in a Multiple-Risk Sample of Mother-Child Dyads Affected by Familial HIV and AIDS

By

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ABSTRACT

Association Between Adult Representation of Attachment and Emotional Availability in a Multiple-Risk Sample of Mother-Child Dyads Affected by Familial HIV and AIDS

By

Diana Marie Gutiérrez

Advisor: Arietta Slade, Ph.D.

The purpose of this study was to examine the association between adult representations of attachment and emotional availability in a sample of multiple-risk mother-child dyads. All participants met the following criteria for participation in the adult attachment/emotional availability study: each mother lived with and provided daily care for her child, each child was between 14 and 28 months of age, and each child's maternal grandparent was diagnosed with HIV. Forty-six mothers completed the Adult Attachment Interview (AAI; George, Kaplan, & Main, 1996), and participated in a 12-minute videotaped structured interaction with their infants, which was coded using the Emotional Availability Scales – 3rd Edition (Biringen, 1999; Biringen, Robinson, & Emde, 1993). Regardless of attachment classification, mothers who experienced the loss of the parent with AIDS were more sensitive and structuring, less intrusive, and less hostile in interactions with their infants than mothers who had not yet suffered the loss of the parent with AIDS. Mothers receiving an Autonomous classification were less hostile than those with a Dismissing and Unresolved classification. Mothers who

were classified as Unresolved with an underlying Secure state of mind in regard to attachment were found to be more sensitive, less intrusive, and less hostile than mothers classified as Unresolved with an underlying insecure attachment (Dismissing, Preoccupied, and Cannot Classify), while the children of the mothers with an underlying Secure attachment were found to be more involving of their mothers in interactions.

In loving memory of my grandmother, Josefina Felix (1916-2005)

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Introduction

In general, psychodynamic theorists postulate that the mother-child relationship is the most important and profound relationship in one's life. Individuals learn about themselves and about relationships through interactions with the family, most importantly through interactions with a caregiver. Freud (1940/1964) believed that the mother-child relationship was the model for all future relationships. Cole and Zahn-Waxler (1992) state that stressors within the family or within the mother-child relationship can have detrimental effects on a child's developing sense of self and identity, and on the interaction patterns of mothers and children. In the last two decades, HIV infection and Acquired Immune Deficiency Syndrome (AIDS) illness have become another set of stressors or trauma that can affect a mother's relationship with her child.

The transmission of the HIV virus and AIDS illness has had a profound effect on how individuals relate to one another, and how individuals think about themselves. Despite advances in the medical and psychological treatment of AIDS and enormous efforts to promote AIDS education and prevention, there continue to be large increases in reported AIDS cases (Center for Disease Control and Prevention, 2002). While advances in medical treatment have prolonged the lives of AIDS patients, it continues to be a stigmatizing disease

that has far-reaching negative effects on family and social structures. AIDS research has focused mainly on the biological sequelae of the disease, treatment, and psychosocial impact on families. The profundity of the disease and its effect on children of parents with AIDS and on interpersonal factors within the mother-child relationship in the next generation is still not fully understood.

Inner-city populations face multiple stressors, such as poverty, racism, underemployment and unemployment, drugs, and violence (Children's Defense Fund, 1995). With the addition of AIDS, it can be assumed that the familial infrastructure is being further compromised by stress (Zayas & Romano, 1994). The Center for Disease Control (2002) has identified New York City as the epicenter of the AIDS epidemic. While AIDS and HIV infection affect all regardless of socioeconomic status, race, ethnicity, and educational level, minority communities continue to be the most impacted by the disease, with the highest increase of cases being poor inner-city women of color of childbearing years. This means that many inner-city children and adolescents have to face parental illness and most likely, the premature death of a parent due to AIDS related illnesses. Children of parents with AIDS (PWA) often have to assume caregiving responsibilities for the parent and the family, which can alter normal development in powerful ways (Rotheram-Borus, Weiss, Alber, & Lester, 2005). How will these early experiences affect the relationship to their own children as these children mature into adulthood, and start families of their own?

The premise that individuals repeat aspects of past experiences in current relationships is fundamental to psychoanalysis (Freud, 1940/1964). Most

parents will, at some point, do or say something to their child that is reminiscent of the way their own parents spoke or interacted with them as children (Slade & Cohen, 1996). Becoming a parent can be stressful regardless of age and background. A parent's relationship to the child invokes strong feelings and wishes from the parent's past childhood relationships with attachment figures. In other words, the manner in which a parent thinks about childhood experiences and how he or she integrates and negotiates feelings in regard to these experiences will influence his or her current relationship to the child (Main & Morgan, 1996; Slade & Cohen, 1996).

Emotional availability is also closely linked to a mother's relationship to her child and typically develops within the dyadic context of that relationship. In optimal situations, mothers and children respond to each other's emotional expression and remain flexible enough to adapt behavior to accommodate changes in emotional states. Saarni (1990) has emphasized that the reciprocal relationship between culture and the nature of the child's relationship with the mother is influenced by emotional regulation.

Most research examining the link between parental representations[1] of attachment and capacity to parent has been on white, middle-class, low-risk populations. Since it is not always possible to generalize to other populations, this leaves many unanswered questions concerning the unfolding of the attachment processes in populations of lower socioeconomic status or high-risk populations. Research geared toward clarifying the association between

[1] Representations are memory traces of past experiences that are reproduced within the mind that guide and influence current behaviors and feelings through dynamic forces within the ego.

parental representations of early relationships and stressful life experiences are instrumental to understanding the nature of the mother-child relationship in high-risk populations, as well as the influence of parental representations of early experience upon the capacity to parent.

This study is an attempt to clarify the transmission between adult representations of early experiences and a mother's ability, or lack thereof, to be sensitive, loving, and structuring. It has been designed with two questions in mind, (1) do the mothers' childhood experiences of having a parent with HIV affect their state of mind in regards to attachment? and (2) Are mother's representations of attachment linked to emotional availability in mother and child?

Empirical research on the effects of HIV on families, as well as theory regarding attachment and the dyadic component of affect regulation and maternal sensitivity are the central domains relevant to this research project. I predict that the psychological impacts of early disruptions in attachment will be evident in the qualities of the youths' relationships with their own offspring. Based on the postulates of attachment theory, it is expected that a young parent's early experience of responsiveness, rejection, or ambivalence will lead to an internal representation of the grandparent and that this internal representation influences the young parent's responsiveness to her own child. Thus a young mother who lacks a consistent, emotionally and physically safe early environment may be faced with a range of negative influences that interfere with her capacity to create a secure base for her child.

Personal Observations in Support of the Literature

In 1998, I began work as an interviewer on a longitudinal study of parents with AIDS (PWA) and their adolescents conducted by University of California Los Angeles – Center for Community Health. The study was called PROJECT TALC. Two years later, a new project named BABY TALK was initiated, which was a study of the children of PWA and their infant offspring. In this study, observations of mother-infant interaction were combined with assessments of infant-mother attachment and young mothers' attachment representations. My role as a research assistant afforded me the opportunity to carefully examine lab assessments and reflect on my interviews with this population. My research interests began to evolve. Listening to the life narratives of the mothers in the Adult Attachment Interview (George, Kaplan, & Main, 1985) and observing mother-infant interactions, two research questions emerged: How might a young mother's childhood experiences with an HIV-positive parent affect her state of mind with respect to attachment? What might be the associations between a young mother's representations of attachment and the nature of her interaction with her child?

During the lab assessments, some of the children responded positively, presenting as engagable and pleasant toddlers, both with the lab staff and with their parents. The mothers of these children appeared highly sensitive and highly responsive to the affect states of their children. In contrast, other children became restless, angry, withdrawn, or distressed during the lab assessment and in interactions with both parents and staff. Some parents spoke to their children

in calming, soothing, and warm tones when the child was distressed, which facilitated the child's ability to calm down. These parents also displayed non-verbal behaviors that facilitated the regulation of affect in the children, such as holding the child, touching him or her, and sitting the child on her lap. Overall, the parent's presence seemed to have a comforting effect on the child.

In sharp contrast, other mothers seemed to have a difficult time containing their child's behavioral and emotional displays of distress. These mothers appeared flustered and/or anxious when confronted by the child's negative emotionality. If the child's emotionality escalated, the mothers reacted by either physically and emotionally withdrawing from the child, becoming silent and unresponsive, or by displaying covert signs of anger and frustration. I never observed a parent lash out physically at a child but the signs of anger were evident and manifested through facial expression and frustrated, unempathic tones. The mother's negative reaction only seemed to exacerbate the child's reactions and he became more frustrated and more difficult to manage. These observations prompted me to think about these parents whose own parents were ill, dying, or deceased and their ability, or lack thereof, to enter into their child's mind to help the child to make meaning of his or her experience.

The early history narratives of these mothers were equally interesting. Many of the mothers seemed to have experienced extreme multiple early stressors; aside from parental illness, they had witnessed domestic violence, parental drug/alcohol abuse, physical abuse, extreme rejection, deprivation due to poverty, lack of educational and social resources, and strained family relations.

As with the observed interactions between mother and child, there were obvious differences among the mothers. Some mothers were able to discuss their early histories in a way that demonstrated that they had come to terms with their experiences. They were able to show empathy for themselves as well as show empathy and forgiveness toward early caregivers. Their resilience in the face of such chaotic and stressful environments was quite impressive. On the other hand, many others seemed to have difficulty discussing their early family histories in a clear and concise manner. They had difficulty answering the questions, often becoming lost in narrative or minimizing the effects of their early experiences on their adult development.

Forty-six percent of the adolescents in the original sample became parents themselves. Attachment theory suggests that early attachment patterns are restructured and reproduced in other relationships later in life. In this case, it would be predicted that the psychological impact of disruptions in early life would be transmitted to the second-generation mother-child relationship. In keeping with attachment theory's assumptions, if the young adults in the project did not have a consistent, emotionally and physically safe early environment because of parental illness and possible drug or alcohol abuse, multiple foster care placements and/or multiple caregivers; we would presume a range of multiple negative effects on their capacity to create a secure base for their child.

Research Aims & Significance of Study

In the proposed study, I will examine how a mother's representation of early relationships influences her current emotional functioning and how this state of mind may affect her ability to be sensitive and caring toward her child. While the lab assessment is an artificial situation, I will use these data to report on possible behaviors in everyday situations. The primary goal of the current study represents an attempt to clarify the link between adult attachment classifications and emotional availability in a high-risk population affected by familial HIV and AIDS, by examining the association between interactional variables and Adult Attachment Interview classifications.

To this end, mothers and infants were observed in a structured teaching task and in an unstructured free play session in order to explore how the dyad's emotional expression and regulation varies as a function of the parent's attachment status. Mothers were interviewed using a semi-structured clinical interview used to determine adult attachment classification.

The study focuses on the mother-child dyad. Under optimal circumstances, fathers play a significant role in the emotional development of their children. However, due to the high-risk status of the families, many of the fathers were absent or sporadically involved in the children's lives. It is also acknowledged that there are multiple pathways and multiple domains of development; therefore, this study will only clarify one possible pathway of emotional growth in mother-child interactions. Because we have seen some mothers, despite growing up with parental illness and/or dealing with the early

death of a parent, demonstrate a certain emotional and mental strength, this study offers us a rich opportunity to examine factors that contribute to attachment security and to emotional adaptability, even in the event of significant trauma and life stress.

Most fundamentally, the significance of the study will add to our understanding of adult representations of early experiences in mothers impacted by parental HIV/AIDS and its effects on the mother-child relationships in the next generation. Bowlby introduced his thinking on attachment processes and behavioral systems over 40 years ago. However, it is only in the last 15 - 20 years or so that researchers and clinicians have utilized attachment theory to gain a better understanding of familial bonds and healthy mental functioning. As with every "new" theory, it is still undergoing extensive scrutiny and modification to help clinicians and researchers gain a better understanding of its strengths and weaknesses. The findings of this study will have implications for theory and clinical practice with high-risk populations that are also affected by AIDS and HIV. In the United States, AIDS has orphaned 125,000 children; 58,000 of those children live in New York City alone (CDC, 2001). Nevertheless, there is a paucity of studies examining the impact of AIDS and HIV on an individual's personality from a dyadic standpoint. No studies have looked at the intergenerational concordance of attachment and parental sensitivity, emotional availability, and affect regulation in these families affected by grandparental HIV and AIDS.

CHAPTER II

Literature Review

The present study involved the study of adult attachment representations and emotional availability in a multi-risk sample of mother-child dyads affected by grandparental HIV and AIDS. The first goal of this study was to examine the distribution of maternal attachment classifications. The second goal of the study was to examine the association between the mother's emotional availability and the loss of the PWA. Third, the association between emotional availability and adult state of mind in regard to attachment will be presented using attachment classifications according to the three-and four category systems. The review of the literature is divided into four sections: the effects of HIV and AIDS on families, adult attachment, maternal sensitivity, and emotional availability.

I. The Effects of HIV and AIDS on Families

The first aim of this study research study was to examine the effect of parental HIV infection and AIDS illness on the mother-child relationship in the next generation. Most inner-city children have faced, and most likely will continue to face, multiple stressors including financial strain, higher rates of violence, single parenting, and social isolation (Children's Defense Fund, 1996; Forehand, Steele, Armistead, Morse, Simon, & Clark, 1998). In the last decade, another stressor influencing the psychological development of inner-city children is having a parent who is HIV infected, and likely to die prematurely. AIDS is a devastating disease that has detrimental effects on personal, familial, and social

adjustment. As of December 2000, there have been 774, 467 cases of AIDS reported in the United States alone, with New York having the most cases at 17% of that number (CDC, 2001). Since the first case was discovered in 1981, AIDS has mainly been associated with gay men. However, the last two decades have seen an enormous increase in HIV infection among heterosexuals and women (Wyatt & Chin, 1999). Among heterosexual men or women, substance abuse and/or being involved with an injecting drug user are the most common routes of transmission of HIV (CDC, 2001). The highest prevalence of HIV infection has been among women of color, specifically African American and Latino women (CDC, 2001; Wyatt & Chin, 1999). Of all the women infected with the HIV virus, those economically disadvantaged have been the most impacted by the disease. Maternal HIV infected families live in an environment characterized by poverty, violence, overcrowded living conditions, racism, unemployment, and single parent households (Armistead & Forehand, 1995). It has also been found that HIV infected mothers are more depressed than infected woman who are not mothers (Tompkins, Henker, Whalen, Axelrod & Comer, 1999).

Better medical treatment has led to an increased number of people with AIDS living longer lives. However, antiretroviral therapies and medical treatment for opportunistic infections has not been helpful for all infected individuals. Side effects, drug resistance, and poor medical coverage makes adherence to medical treatment difficult. Three quarters of the HIV-related adult deaths occur among men and women between the ages of 25 and 44, surpassing any other

single cause of death for mothers of young children and adolescents (Rotheram-Borus, Draimin, Murphy, & Reid, 1997). This means that an unusually high number of children and adolescents are being impacted by parental illness or early parental death. Forehand et al (1998) found that mothers who are HIV positive face more social and psychological problems than their non-infected counterparts: namely stigmatization, maternal depression, compromised parenting, and separation due to hospitalizations. They also found that children of a parent with AIDS face difficulties in several domains of psychosocial adjustment, including internalizing problems and externalizing problems.

In adolescence, one moves toward increased autonomy and intimacy and begins to enter into intimate relationships with people outside the family such as close friends, love interests, and mentors or other relationships with adults. Although one's sense of self is not fixed, the sense of self begins to solidify in adolescence. Adolescents begin to explore their roles in relationships, their expectations, likes and dislikes, wants and needs, with little parental permission or influence. Yet, autonomy does not mean detachment. Rather, as in early childhood, the adolescent still needs the parents for comfort and support.

In minority and/or economically disadvantaged families, adolescents are often thrust into roles and have to assume responsibilities for which they are not yet ready (Bekir, McLellan, Childress, & Gariti, 1993; Boszormenyi-Nagi & Spark, 1973). Often these teenagers have to care for younger siblings, worry about the financial well-being of the family, and assume homemaking responsibilities. Adolescent development in these communities is altered. When an adolescent is

faced with parental illness, development is further compromised because the parent is unable to provide for his or her children (Aranda-Naranjo, 1991). In addition to the aforementioned responsibilities, the adolescent is thrust into the role of caregiver by having to care for a sick parent (Compas et al. 1994). Parentification may lead to mental health problems such as increased depression or substance abuse in adolescent populations (Bekir et al, 1993; Wallace, 1996). Stein, Riedel, & Rotheram-Borus (1999) have found that the greater the severity of their parent's illness, the more the adolescent assumed inappropriate adult roles.

Levin (1994) estimates that four to five percent of children in the United States will experience the death of a parent before the age of fifteen. She also estimates the death of parents due to AIDS orphans 15,000 children and adolescents yearly. The ramifications of this situation are not yet fully understood because research has failed to examine the impact of the disease on the psychological and emotional development of children and adolescents. AIDS research has tended to focus on the disclosure of HIV status to family, custody planning for children and teens, and medical treatments. Few studies have focused on the effects of parental AIDS-illness on family dynamics. It is known that adolescents who suffer traumatic losses, such as parental death, report higher than normative psychological distress (Bradach & Jordan, 1995). Therefore, it can be assumed that the AIDS-related death of a parent will have a similar, if not worse outcome.

In addition to the stressors already listed, individuals in HIV infected communities are facing further stigmatization by a terminal illness that has far-reaching effects in the familial and social realms. The effects on children of a parent living with AIDS are different from the effects on children of a parent living with other chronic illnesses. All children who lose a parent suffer permanent and profound loss; however, what sets these children apart is the combination of stigma and denial that accompanies an AIDS related death. Although advances in medical treatment of HIV and AIDS have prolonged the life of the affected individual, there continues to be a social stigma attached to the illness.

Zayas and Romano (1994) postulate that several factors contribute to the stigmatization of AIDS illness and death. First, HIV-related illness has long been associated with homosexuals, a group that is already highly marginalized. Next, the second largest group infected by HIV is drug users. Within society, drug users are vilified and maligned; therefore, an individual with AIDS will be suspected of being a drug user. The last four decades has seen an increased awareness and acceptance of sexuality, yet many individuals are still embarrassed to openly discuss sex. Since AIDS is still considered primarily a sexually transmitted disease, it becomes awkward to discuss issues of transmission and protection against AIDS. Some may even go as far as assuming that AIDS transmission is an easily avoided situation and in some way the infected person was careless and “asked for it”. Finally, any terminal illness raises anxiety and fear, often causing others to withdraw from the sick or their families. Despite increased efforts at AIDS education, many know very little

about HIV and the AIDS disease and may be afraid of transmission or to be associated with someone who has the illness. All these factors contribute to a families' sense of shame associated with the illness. Shame leads to isolation, ultimately leaving the family deprived of social support (Boyd-Franklin, Aleman, Steiner, Drelich, & Norford, 1995).

II. Attachment Theory

A central aim of this research was to examine the attachment status of young mothers who are children of a parent with AIDS. John Bowlby, the founder of attachment theory, formulated the basic tenets of attachment theory from his clinical work with delinquent boys who had all suffered traumatic early losses and traumatic abandonment (1944), and through his observations of young infants' interest in maintaining proximity to attachment figures (1958, 1969/1982, 1973, 1980). Proximity to attachment figures was maintained by using the attachment figure as the secure base for exploration of the environment and as a safe haven when alarmed or frightened. Mahler, Pine, and Bergman's notion of "refueling" (1975) addresses similar intrapsychic processes that guide the premise behind Bowlby's theory of the secure base (Carlsson & Sroufe, 1995). All refer to a series of cyclical interchanges between the mother and the child, where one member in the dyad influences the other.

Bowlby, as summarized by Cassidy (1999), drew his ideas from the work of ethologists who believed that attachment in primates resulted in greater protection for primate infants from potentially dangerous situations, greater

access to food, and physiological regulation. The theoretical beliefs of his time described the infant as essentially passive in relation to the parent and mainly reactive to the caregiving environment; however, ethological studies demonstrated the idea that children were active participants in the parent-child relationship. Bowlby (1973) proposed that in stressful, frightening, or dangerous circumstances, attachment behaviors increase the probability the infant would receive protection from the parent. Danger is perceived not only in situations that cause fear or apprehension, but can include feelings of hunger, fatigue, or illness.

Bowlby (1969) referred to the organization of attachment behaviors within an individual as the “attachment behavioral system”. Cassidy (1999) states that Bowlby postulates that the physical goal (proximity to the mother) is replaced by the psychological goal of feeling states of closeness to the caregiver, which he terms the attachment bond of an infant to the mother. She suggests that Bowlby’s premise can be summarized by two basic assumptions regarding the nature of attachment bonds. The first, as explained earlier in this text, is that the attachment bond is characterized by a set of behaviors that increase the likelihood that a child will feel protected and secure in times of vulnerability. The second assumption proposed by Cassidy is that the presence of attachment behaviors does not infer an attachment bond. An infant may seek protection from a stranger or from another family member, but these behaviors do not constitute an attachment bond with this person.

Bowlby suggested that although most children become attached, individual differences in attachment exist as a function of the nature of the infant's relationship with attachment figures (Cassidy & Mohr, 2001). The infant internalizes a representation of the attachment figure and how this figure is likely to respond in certain situations. Eventually, the infant learns patterns of responding to caregivers and, later in life to others, based on experiences with caregivers. These patterns of behavior are called "internal working models" and eventually become unconscious and natural. Berman and Sperling (1994) further developed the idea of internal working models to include: (1) aspects of the self, (2) aspects of the attachment figures, and (3) affects that connect the two.

Most infants learn a strategy or plan of action to maximize and maintain proximity to their attachment figures. Ainsworth, Blehar, Waters, and Wall (1978) developed the Strange Situation procedure to observe and indicate the quality of an infant's attachment to his parent. The infant's behavior is classified into four categories of attachment: Secure, Avoidant, Resistant/Ambivalent (Ainsworth et al, 1978) and Disorganized (Main & Solomon, 1986). Despite the behavioral differences observed in secure and insecure patterns of attachment, these infants have caregiving environments that are predictable enough that the infants develop schemas that help maximize protection by an attachment figure in times of distress. For the babies classified as Secure, an expression of distress typically prompts attachment figures to respond to their needs whereas babies categorized as insecure have learned other strategies for activating the protection of attachment figures. Babies classified as Avoidant have adapted

strategies that suppress the expression of attachment behavior in order to maintain access to caregivers who are uncomfortable with closeness, while infants classified as Ambivalent have learned to express distress even when their well-being is not threatened in order to maximize the chances that their inconsistently responsive caregivers will be available when help is needed.

Fonagy (2001) suggests that the common ground that the concept of secure attachment has with healthy narcissism (Kohut, 1971), basic trust (Erikson, 1964), reflective functioning (Fonagy and Target, 1997), and mirroring (Winnicott, 1956) brings attachment theory back to its psychoanalytic roots. Before Bowlby, psychoanalysts Melanie Klein (1932) and D. W. Winnicott (1958) postulated that in a healthy relationship between infant and mother, the mother acts as a support to the infant's developing ego. Consequently, the infant internalizes these aspects of the mother so that he can use the mother-introject to self-soothe in the absence of the mother.

Winnicott (1960) expanded on this idea by theorizing that "good enough mothering" allows the child to develop in spite of the fact that he cannot control what is good and bad in the environment. Stern (1977) makes a similar point and suggests that the mother's behavior toward her infant provides the infant with experiences of human relatedness. Like Bowlby, Stern also believes that the actual "object" is not internalized but rather the interactions between the infant and the object. The mother acts as an emotional "protective shield", helping an infant to manage his emotions and interpret the world for him.

Contemporary psychoanalytic theorists would say that people develop an internal capacity that helps process emotional stimuli (Music, 2001). This capacity may have been damaged or never developed because of biological predispositions or because, as a child, the person may not have had his emotional life taken seriously (Music 2001). Consequently, the child develops an insecure attachment. Security of attachment does not mean that an infant never feels fear, uneasiness, or worry (Bowlby, 1973). Fear and anxiety are normal human reactions that guide adaptive behavior. Rather, security of attachment means that the infant is able to rely on the caregiver as a consistent source of comfort and protection at such times. Insecure attachment is not itself a form of psychopathology, but has been suggested as a risk factor in the development of childhood psychopathology and behavior problems (Lewis, Feiring, McGuffog, & Jaskir, 1984; Sroufe & Egeland, 1989). As Bowlby proposed, children's attachment patterns evolve through identification and internalization of a representation or internal working models of the parent's responsiveness, rejection, or ambivalence to their needs for comfort and protection.

Solomon and George (1999) in their comprehensive review of Bowlby's work, state that he thought that any child who has a broken early attachment, whether through loss, trauma, and/or separation, was likely to show signs of partial or complete deprivation. According to Bowlby, partial deprivation would be characterized by feelings of depression and guilt, while complete deprivation is characterized by listlessness, unresponsiveness, and retardation of development. He suggests that a child moves towards deprivation by protesting

the separation to the mother, then by despair, finally by detachment. The detached child is likely to behave in markedly abnormal ways upon reunion with the caregiver.

Adult Attachment

Since adults are no longer involved in relationships with caregivers that require the caregivers' response in times of stress or fright, attachment behavior cannot be assessed in adulthood. Instead, Berman and Sperling (1994) have defined adult attachment as: "the stable tendency of an individual to make substantial effort to seek and maintain proximity to and contact with one or a few specific individuals who provide the subjective potential for physical and/or psychological safety and security" (p. 21).

Mary Main, who studied under Ainsworth, developed and maintained a strong interest in attachment as an internal psychological organization and set out to measure attachment in older children and adults. Main and her colleagues (George, Kaplan, & Main, 1984; Main, Kaplan, & Cassidy, 1985) discovered that adult narratives of early experiences with primary attachment figures could be used to assess adult states of mind concerning attachment, just as infant attachment could be assessed in the Strange Situation (Ainsworth et al, 1978). Their efforts denote a move from investigations of behavioral manifestations of attachment to the representational level of mental models of attachment.

They developed the Adult Attachment Interview (AAI), a semi-structured clinical interview in which adults are asked to characterize their relationship to each parent in childhood, to describe attachment related events, and to describe

separations, and traumatic events of loss and abuse. Using the AAI, they found that some individuals were able to conceptualize early relationships in a coherent and clear manner. The language they used when talking about and describing past relationships and experiences was rich and collaborative. A coherent interview is one where past events, and the feeling states associated with those events, are conveyed in succinct narrative style free of distortion and contradictions.

Main and her colleagues refer to the ability to be coherent and collaborative as “metacognitive monitoring”. This means the interviewee is thinking about the process of telling the story and making adjustments to the narrative as the interview unfolds. Coherence of speech, when describing interpersonal relationships and other aspect of metacognitive monitoring, stems from the capacity to reflect upon internal processes, particularly affective experiences in a complex and dynamic fashion.

Hesse (1999) provides a comprehensive overview of the three organized attachment categories (Main et al., 1985; Main & Goldwyn, 1984, 1998). He describes individuals who are able to speak of their childhood experiences in clear, concise, and truthful ways as having a representation of attachment that is Secure and Autonomous. They posses the ability to put together a clear, mental model of their early experiences by displaying insight and maintaining emotional perspective and organizing capacity to help them transcend historical truth. Notably, the classification of Autonomous is not based on the presence or

absence of positive early experiences, but rather on the quality of integration and coherence in one's narrative (Main et al, 1984).

Other individuals are unable to keep a clear emotional perspective while recounting early experiences; either they are unable to keep an emotional distance or they overregulate responses by minimizing the effects of emotional stimuli. Consequently, their narratives of early experiences appear incoherent, confusing, and fragmented. These different types of attachment representations are described as Dismissing or Preoccupied. Transcripts classified as Dismissing demonstrate that the individuals minimize the discussion of attachment-related experiences. The description of the parent is favorable to highly favorable, but they fail to support such descriptions or they actively contradict the description in later sections of the interview. They have a tendency to idealize their parents or to claim to have little or no memory for childhood. Their speech is terse and succinct. Conversely, individuals with interviews classified as Preoccupied produce narratives that are unfocused and uncontained. The interview seems to stimulate memories, yet they cannot present these memories in a coherent or collaborative manner. These speakers tend to move from past descriptors to present descriptors and back again in quick succession. Unlike the speakers found to have Dismissing AAIs, Preoccupied speakers do not idealize their parents; instead they oscillate regarding the view of the parent, sometimes several times within the same sentence. Their speech is angry, or passive, or vague and tangential.

Main, DeMoss, and Hesse (1991) identified a fourth category. They discovered that some parents show evidence of mental disorganization and disorientation when discussing potentially traumatic experiences such as the death of an attachment figure or physical or sexual abuse. The transcripts of individuals classified as Unresolved/Disorganized manifest cognitive and affective disorientation and lapses in reasoning or discourse during the interviews. Such individuals may make statements about the deceased attachment figure indicating disbelief that the person is really dead. In discussing incidents of trauma, those classified as Unresolved seem to "enter a somewhat dissociative state" (Main & Hesse, 1992; p. 10). Dissociation can be seen as a defense mechanism for handling the overwhelming emotions that accompany traumatic experiences (Putnam, 1995). Lapses in monitoring of discourse in the AAI are similar to the speech patterns evidenced by dissociative disordered patients when discussing traumatic experiences (van der Kolk & Fisler, 1995). The Unresolved/Disorganized classification does not indicate a representation of attachment-related experiences, but rather it is a strategy used to keep memories of the experience of loss and abuse at an emotional distance. Characteristics of disorganized speech are only evident when discussing past trauma; as such Unresolved individuals are assigned a secondary classification that fits their overall state of mind.

Main and Hesse (1990) postulate that an individual demonstrating an Unresolved attachment displays dysregulated parental behaviors directed toward the infant: dissociative behavior, invasions of the infant's personal space, panic in

the absence of environmental threat, submission to the infant, sexualized behavior, and strange and stiff movements. In other words, the parent's fear may leave the infant with little or no confidence in the parent's ability to protect the infant in times of stress. They also proposed that traumatic experiences may be transmitted intergenerationally and this behavior may be related to experiences of loss or trauma that the parent has not resolved. They have found that the parent may be frightening to the infant not only because of direct frightening behavior, such as abuse, but also because the parent is herself frightened.

Hesse (1996) proposed a fifth category of Cannot Classify (CC). This category is assigned when the interview displays no predominant single state of mind with respect to attachment (Main, Goldwyn, & Hesse, 2002). The CC category is relatively rare in low-risk populations, however it has been associated with psychiatric and forensic populations, violence, and sexual abuse (Hesse, 1999).

Research has examined the link between adult attachment narratives and behavioral and personality characteristics. Adolescents with Secure AAIs are self-confident and socially skilled (Rothbart & Shaver, 1994). In addition, individuals classified as Secure are able to acknowledge distress and anxiety and are able to turn to others for support, resulting in stable and satisfying long term relationships (Kobak & Sceery, 1988). Individuals with Preoccupied AAIs lack self-esteem and are worried about rejection and abandonment (Rothbart & Shaver, 1994). They are hypervigilant, jealous and angry in relationships.

Hypervigilance in relationships with caregivers inhibits development of autonomy (Kobak & Sceery, 1988). On the other hand, individuals with Dismissing AAIs may or may not be interested in close relationships and are inhibited and socially unskilled (Rothbart & Shaver, 1994). For the most part, children classified as Secure grow up to have Autonomous AAIs.

Levine and Tuber (1993) postulate a hierarchy of attachment where Secure/Autonomous representations are the most adaptive. These are followed by Dismissing representations, and then Preoccupied who "have a more fragmented sense of self because their capacity to feel whole and secure is more transient" (p. 71). The "fragmented sense of self" of Preoccupied mothers may make their behavior more inconsistent in relation to their child, thereby making it more difficult for infants to develop modes of strategy to engage the parent.

van IJzendoorn and Bakermans-Kranenburg (1996) reported in a meta-analytic sample of 584 non-clinical mothers, 58% were classified as Secure, 24% were Dismissing, and 18% were Preoccupied. Using the Unresolved category the distribution was slightly different, with 55% of the mothers being classified as Secure/Autonomous, 16% Dismissing, 9% Preoccupied, and 19% Unresolved. This distribution changes considerably with low socioeconomic samples, with an overrepresentation of Unresolved and an underrepresentation of Secure. Research suggests that there is stability of attachment security in both infancy and early childhood (Owen, Easterbrooks, Chase-Landsdale, & Goldberg, 1984; Main & Cassidy, 1988). However, research supporting stability of attachment security has been based on sample of low-risk, middle-class mother-child dyads.

Changes in attachment patterns are associated with changes in quality of caregiving and with maternal and environmental risk factors (Spieker & Booth, 1988) and are more characteristic of high-risk and/or maltreating populations (Lyons-Ruth, Repacholi, McLeod, & Silva, 1991). Negative affect or unavailability on the part of mothers is associated with stable insecurity or movement toward insecurity. In addition, secure patterns show far more stability over time than insecure patterns, and higher income shows more stability than lower income samples (Thompson, 1998). Maternal depressive symptomatology, insensitive parenting, adolescent parenting, low educational attainment, and low social support are all associated with insecure attachment (Spieker & Booth, 1988). Benoit and Parker (1994) also found stability of AAI classification over time in 90% of the study sample.

A number of studies lend support to the idea that different attachment styles influence emotional experience and psychological adjustment. Insecure attachment has been associated with greater loneliness, anger, resentment, anxiety, depression, as well as lower self-esteem and less self-confidence (see Shaver & Clark, 1994, for a review). The individuals with Dismissing AAIs minimize negative affects by way of idealization or denial of effects of experiences on self, which is likely to involve perceptual and affective distortions (Cassidy, 1994). In relation to the child, parents with interviews classified as Dismissing are more rejecting of babies' bids for comfort and assurance, and they tended not to attune to negative affect (Haft & Slade, 1989). Consequently, their babies, usually classified as Anxious-Avoidant, have learned that the

expression of negative emotion is inappropriate or unacceptable; therefore, there is an over-regulation of affects. In contrast to parents with AAIs classified as Dismissing, those with AAIs classified as Preoccupied are still emotionally embroiled with their own parents. They may express anger at past and/or current relations with their own parent that they have not been able to resolve. In relation to their children, they may be unable to help the child regulate affect because they cannot regulate their own affects. Preoccupied mothers do not attempt to comfort a distressed infant; rather they attempt to redirect the infant's attention. This behavior only heightens the infant's distress, which leads to an under-regulation of affects, as seen with infants categorized as Ambivalent. The parent may unconsciously want to maintain a heightened emotionality in their children as a way of remaining attached. Haft and Slade (1989) found that mothers with Preoccupied AAI classifications randomly attuned to both positive and negative affect states. In contrast, mothers classified as Secure attuned to a range of infant affect and children classified as Secure seem to have an open and flexible regulatory system.

III. Maternal Sensitivity

According to Freud (1940/1964) a child's relationship to the mother is unique and is the prototype for all relationships. Similarly, attachment theory presumes that as a child develops and matures, internal representations are not lost but are reproduced to guide and influence the degree of responsiveness she shows toward peers, romantic partners, and eventually to her own children.

Intergenerational transmission of parenting indicates the influence of parent's own experiences as a child on her caregiving practices and attitudes (Fraiberg, Adelson, & Shapiro, 1975; Bowlby, 1958, 1980; Slade, Belsky, Aber, & Phelps, 1999). Attachment theory assumes that an individual's experience with early caregivers leads to an internal representation of the caregiver which influences the nature and quality of responsiveness to her own child (Bowlby, 1988; Main, Kaplan, & Cassidy, 1985 as cited in van IJzendoorn, 1992). In other words, the mother's current representation of her own attachment experience is related to the way she thinks about, organizes, and responds in relationship to her child (Slade, 1999).

Bowlby believed that attachment was the bond of a child to caregiver, and caregiving was the mother's behavior toward the child (Berman & Sperling, 1994). Berman and Sperling (1994), however, believe that caregiving behavior is a direct outgrowth of the attachment system, especially since fear and apprehension trigger caregiving behaviors. Parenting can be transmitted from one generation to another through a myriad of ways, such as role modeling (Simonton, 1983), observation, past experiences of interacting with parent, and parental coaching (Crittenden, 1984).

Using Bowlby's attachment perspective as the foundation, Mary Ainsworth set out to examine natural patterns of mother-child relationships in Uganda (Ainsworth, 1967) and later in a more formal, longitudinal study in Baltimore (Ainsworth, Bell & Stayton, 1971; Ainsworth, Blehar, Waters, & Wall, 1978) to better understand the developmental consequences of individual differences in

attachment. The central premise of Ainsworth's work was the notion that sensitive, warm, and responsive caregiving is fundamental to the development of a secure mother-child bond. Sensitivity implies an ability to attune and attend to one's child in flexible manner and the ability to tailor responses to the child's individual needs. A mother's sensitivity includes positive feelings toward the child, such as enthusiasm and warmth, as well as physical and psychological accessibility, and loving acceptance (Mahler et al, 1975, Ainsworth et al, 1971, Crittenden, 1981, Crockenberg, 1981). Ainsworth did not suggest that security of attachment depended entirely on the mother, however she did attribute a disproportionate influence to the mother rather than the child (Bretherton, 2000).

Ainsworth and colleagues developed a scale to measure maternal behaviors towards the infant and a mother's way of being with her baby. The scale provides four dimensions of sensitivity: (1) sensitivity versus insensitivity to the infant's signals; (2) acceptance versus rejection; (3) cooperation versus interference; and (4) emotional accessibility versus ignoring (Bretherton, 2000).

Nicholls and Kirkland (1996) and Karen (1994) provide a comprehensive overview of Ainsworth's study and findings. They report that using her 4-dimensional sensitivity scale, Ainsworth found that mothers differed in their responses to their child's needs and demands. All mothers were found to respond to their babies and to provide some consistency in interactions with their infants, but the quality of the interaction differed dramatically. Sensitive mothers were warm and caring when interacting with their babies, as well as skilled in adjusting their behavior and responsiveness in accordance to the baby's cues.

They were more affectionate and tender, less inept and distressing to their infants. In contrast, insensitive mothers were low on all four measures when compared to the sensitive mothers. They had difficulties responding to the baby in a loving, attuned, predictable, and consistent way. Within the insensitive group, as babies became more upset and demanding, subtle differences in mothers' responsiveness and behavior were observed. Some mothers were unpredictable and inept in relation to their infants, while others were rejecting and hostile.

Cassidy and Mohr (2001) report that in Ainsworth's study a subgroup of mothers observed to be insensitive avoided physical contact with the baby. Often they rejected or ignored the attachment behaviors of their babies. Another subgroup of mothers was neither avoidant nor rejecting of their babies' attachment behaviors, but was ineffectual at responding to attachment needs. These mothers were often inconsistent in their responsiveness to their babies' distress, displaying warmth one moment and intense anger the next.

Sroufe (1979) continued and elaborated on Ainsworth's work by using the premise behind Mahler's theory of rapprochement (Mahler et al, 1975). He found significant differences between mothers of secure and insecure preschoolers. Mothers of children classified as Secure provided a supportive presence for the child. The mothers were able to give their preschoolers information to complete the task, making connections between actions and results. She was able to keep the child engaged, emotionally and behaviorally, by providing enough assistance that the child did not feel overwhelmed. In contrast, children found to have an

anxious attachment had mothers who were unable to maintain appropriate distance. They appeared intrusive and demanding, making it impossible for the child to have his own experience. They were unable to tolerate the child's frustration, immediately jumping in to the role of problem solver. Their children were not afforded the opportunity to fail and adjust behavior to accomplish a task. Children categorized as Avoidant had mothers who gave little assistance when needed. Their children became overly frustrated, rarely receiving any form of encouragement.

As Ainsworth found a strong correlation between a mother's sensitivity and infant security, other studies have also found that adult attachment representations are associated with quality of a mother's caregiving and childrearing (Crowell & Feldman, 1988; Van IJzendoorn, 1995). Specifically, mothers who demonstrated secure working models of adult attachment provided more sensitive and responsive care to their infants compared to mothers with insecure working models. A mother classified as Autonomous represents her relationship with her child in a manner that is consistent and coherent, and display more pleasure with parenting (Haft and Slade, 1989). Goldberg, Blokland, Cayetano, and Benoit (1998) found that mothers with Dismissing AAIs were least interested in and responsive to infant affect; mothers with Preoccupied classifications were inappropriately responsive; and mothers with Secure/Autonomous attachment styles were empathetic and were able to mirror negative expressions with negative expressions of their own.

Egeland and Erickson (1987) focused on negative maternal behaviors of unresponsiveness, detachment, and lack of pleasure from parenting. They found that infants of mothers who were emotionally unavailable had higher base rates of insecure attachment. Crowell and Feldman (1988) found that mothers classified as Autonomous displayed behaviors deemed as warm and supportive, while detached mother displayed behaviors that seemed less emotionally supportive and helpful to their children. Mothers classified as Preoccupied were neither helpful nor supportive; instead, they fluctuated between being warm and gentle at times and being angry and confused at others.

Still, the association between adult attachment classification and maternal sensitivity remains modest (DeWolff & VanIJzendoorn, 1997; VanIJzendoorn, 1995). Continued research has failed to identify the intermediate step that links parental representations of early experiences, and the mother's capacity to be sensitive toward her child, and the nature of the child's attachment (Pederson, Gleason, Moran, & Bento, 1998).

A meta-analysis of 66 studies conducted by DeWolff and VanIJzendoorn (1997) finds moderately strong possible association between maternal sensitivity and attachment security but they also noted that unknown factors seem to interact with security. A meta-analysis of attachment classification in clinical and risk populations carried out by van IJzendoorn, Goldberg, Kronenberg, and Frenkel (1992) found that maternal factors contribute more strongly to the quality of the mother-child attachment relationship than child factors. Cole-Detke and Kobak (1998) suggests that confounding factors such as maternal youth,

socioeconomic status, limited resources, limited education, and limited caregiving skills could increase the risk for insecure attachment. Information on the effects of unstable, stressful, and disruptive environments on maternal sensitivity and attachment is quite limited. Most research has been restricted to middle-class Americans; this continues to impede our understanding on how cultural and socioeconomic factors influence the relationship between maternal sensitivity and security of attachment.

IV. Emotional Availability

Ainsworth originally defined maternal sensitivity in behavioral terms. More recently however, theorists and researchers have emphasized the role of affect in the mother-child exchange. Thus, what is crucial in promoting the child's development is not only a mother's behavior, but her affect as well; in particular, her appropriate affect and emotional availability are thought to be vital in the development of a secure attachment in the child. The mother and infant form an emotional bond from the beginning of life. Both mother and infant influence the other by being affectively aware and demonstrating a willingness to share in each other's emotional experience (Stern, 1977; 1985).

Stern (1985) describes a sensitive mother as one who recognizes her infant's affective signals, accepts these signals, and shares in these with her child. In this way, the child begins to be socialized and learns about his feelings. Like Stern, Emde (1980) suggests emotional availability requires an individual to be emotionally responsive and affectively attuned to another's needs and goals.

Sorce and Emde (1982) further suggest that responsiveness and availability is not limited to physical availability, but rather an ability to express emotions in relation to another. Mahler et al. (1975) used the term “emotional availability” and “quiet supportiveness” to describe a supportive and accepting maternal presence where the child feels comfortable and confident enough to explore his developing sense of autonomy. Likewise, he also has the ability to move toward the parent because the parent is welcoming of him.

Biringen and Robinson (1991) describe emotional availability as a dyadic composite that involves mutual regulation and readiness to share affective states. “Each partner expresses emotions and is responsive to the emotions of the other” (Emde & Easterbrooks, 1985, p. 80). Within the emotional availability framework, affects are key, specifically appropriate affect. A parent accepts both negative and positive affect and supports a wide range of expressions in many situations. Similarly, children are emotionally responsive to parents and actively participating in emotional and physical interactions with the caregivers. This promotes a sense that the parent is a “secure base” (Bowlby, 1988; Mahler, 1975).

Closely linked to the idea of affect availability and regulation is the concept of reflective functioning developed by Fonagy and colleagues (Fonagy, Steele, Moran, Steele, and Higgitt, 1991). Reflective functioning is the psychic capacity to form an image of the self and others, which allows one to perceive and understand oneself and others in terms of mental states. It is different from the concept of affect attunement in that reflective functioning focuses less so on

discrete maternal behaviors and more on internal, conscious and unconscious, representations of self and other. It includes the capacity to recognize and regulate feelings in the self and to imagine similar feelings, beliefs, intentions, and desires in another (Fonagy, 1998). Reflective functioning develops through several dynamically interacting pathways such as emotions, family relations, environment, and social groups but emerges fully in the context of a secure attachment relationship (Fonagy et al, 1996). For example, a securely attached mother can make sense of and make known her child's internal experience, as a function of her capacity to reflect upon her own affective experience. A fully reflective mother can regulate and modulate her own affective experiences. Her child's affective expression is familiar to her because on an unconscious level she recognizes these states in herself. As a result, she can understand and reflect on the child's mental experience and then respond in a coherent and organized manner, which subsequently helps the child bring meaning to his own emotional experience. Through the relationship with a highly reflective mother, the child can translate, understand, integrate, and contain his affective experiences. Reflective functioning is essential for self-other emotional awareness and for the establishment of strong, healthy, social relationships (Fonagy & Target, 1997).

Gianino and Tronick (1986) postulate that emotional availability includes the role of conflict negotiations or negotiations of mismatched states. It is a mutually regulating system of affect whereby a mother's regulatory system allows her child to modulate his internal emotional states. As a child matures within this

mutually regulating system he develops a set of behaviors that help him regulate his emotional state. When the mother accurately reads her child's emotions, she enables her child to self-regulate. In contrast, if she is unable to do so, the child becomes emotionally disorganized. Consequently, it influences his engagement with the external environment. The mutually regulating system can become discoordinated when one partner fails to accurately read the other. Adjustments in the system result in the child being able to experience negative and positive affects in his relationship to his mother. The child internalizes aspects of this relationship that eventually guide the child's interactions with others.

When the system is dysregulated, the child may turn to self-regulatory behaviors, such as rocking, sucking his thumb or hand, withdrawing, or turning away. Infants who experience a frequent breakdown in the regulatory system may turn away from social engagement or they may become overly dependent on others. Successful repair of such situations is viewed as a critically important aspect of sensitivity (Biringen, Emde, & Pipp-Siegel, 1997; Tronick & Cohn, 1989). Difficulties arise when the mother, because of her own needs and biases, either overstimulates or inhibits her infant's emotional signals (Stern, 1985). Dysregulation between mother and infant can carry into social and cognitive development (Kobak, 1987) and can lead to various types of pathology (Slade, 1999).

The ability to express a range of emotions in a socially appropriate manner is essential for emotional development. Emotion regulation refers to the conscious and unconscious process that influence and aid an individual to

experience and express emotions (Gross, 1998). Difficulties regulating affect leads to internalizing disorders such as depression and anxiety, or externalizing disorders such as impulsivity and acting out behaviors (Gross, 1998). Caspi, Henry, McGee & Moffet (1995; as cited in Gross, 1998) found that coping, emotional regulation, and traditional defensive processes are all guided by affect regulation.

Eisenberg and Fabes (1992) found that high levels of negative emotion and poor modulation of emotion predicts lesser social competence and decreased peer acceptance. Infants are not physiologically or cognitively mature enough to regulate their own emotion. Thus, the early caregiving environment supports and influences the development of affect regulatory capacity in the service of attaining goals (Thompson, 1994; Field, 1994), and maintaining a sense of security while modulating affects in an adaptive and flexible manner (Kobak & Sceery, 1988). The child can move from a dyadic coregulation between parent and child to an autonomous self-regulation of emotion.

To a certain extent, many theoretical ideas, such as “affect attunement” (Stern, 1977), “quiet supportiveness” and “emotional availability” (Mahler et al, 1975), “mutually regulating system” (Gianino & Tronick, 1986), and “reflective functioning” (Fonagy at al, 1991) are relevant to the idea of emotional availability. A scale recently developed by Biringen, Robinson, & Emde (1998) represents an effort to evaluate all these dimensions within the mother-child interactions. Thus, the theoretical conceptualization of the Emotional Availability Scales (EAS; Biringen et al, 1998) establishes it as a dyadic concept involving a mutual

communication and regulation of affects, and a willingness to share these experiences (Ziv, Aviezer, Gini, Sagi, & Koren-Karie, 2000). In the EAS, genuine sensitivity requires that one partner acknowledge, understand, and accept the other's needs. The dyadic component makes it impossible to assess the parent's behavior independently of child's behavior or vice versa (Pipp-Siegel, 1999). A mother can be affectively positive, but if her child is responding negatively and she cannot or does not redirect or adjust her behavior to accommodate her child's emotional needs, then she cannot be considered highly sensitive.

Recently researchers have documented associations between EAS scores and adult autonomy as measured by the Adult Attachment Interview. Biringen, Brown, Donaldson, Green, Krcmarik, & Lovas (2000) found that the dimensions of the emotional availability scales are predicted by AAI classification. Aviezer, Sagi, Joels, and Ziv (1999) found that infants classified as Secure, as well as maternal Autonomous classifications, were associated with higher emotional availability scores for the dyads. Siri-Oyen (1997) examined emotional availability in a sample of high-risk parent-infants dyads in high-risk neighborhoods, and found that mothers with AAIs classified as Secure were more sensitive and optimally structuring, and less intrusive, and their children were more optimally responsive and involving of their parent. In contrast, parents with insecure classifications were less sensitive, less optimally structuring, more intrusive, and their children less responsive than the Secure parent group, with the Preoccupied group having lower sensitivity ratings. Siri-Oyen, Landy and Hilburn-Cobb (2000) investigated emotional availability in a

sample of at-risk mother-child dyads. In this sample, 83% of the mothers had non-autonomous attachment classifications. Their findings suggest that mothers classified as Secure/Autonomous had higher EAS scores than did mothers who demonstrated insecure representations.

This study was suggested by the fact that disadvantaged young people whose mothers are HIV-positive, or have AIDS, are likely to have grown up in environments and faced emotional factors that altered the way they experience themselves, the defenses they use, and the ways they express affect. The young mothers in this study have experienced not only maternal HIV-illness or maternal AIDS-related death, but also multiple long-standing and continuing traumas. From preliminary reviews of the early life-narratives, many of the mothers in this sample have experienced extreme rejection, traumatic separations from primary caregivers, multiple foster care placements, extreme physical and sexual abuse, and/or multiple losses due to violence and illness. In addition, many had caregivers who were drug-users and/or caregivers that were emotionally and psychologically unavailable to them.

Research on populations affected by HIV and AIDS have focused on descriptions of the characteristics and the behavioral sequelae of maternal illness on mothers and on children. Some studies have examined psychosocial factors associated with familial AIDS illness. Yet few studies have examined the interpersonal effects of maternal AIDS-illness on the relationship between mothers and children, and only one study has focused on attachment and HIV (Peterson, Drotar, Olness, Guay, & Kiziri-Mayengo, 2001). No studies, to date,

have examined the intergenerational transmission of attachment patterns in families affected by grandparental HIV-illness. Therefore, the first aim of this study was to provide a rich opportunity to examine the consequences of grandparental illness and multiple risk factors on the next generation of mother-child dyads. The difficulty in examining a multiple risk population is the limitations of determining which factors will have confounding effects on the outcome or if instead the outcomes are related to associations between all risk factors. Likewise, the limitations of this study are that there has been no method incorporated that will control for confounding risk factors. Instead, grandparental HIV-illness will be included as another risk factor experienced by these subjects.

This study proposes that due to the environmental high-risk factors, the mothers in this sample may have adapted insecure attachment styles that would impact on their childrearing abilities, their ability to be flexible in relation to their child, and their ability to share in their child's emotional experience (Stern, 1985). This study proposes that parental availability will differ as a function of secure and insecure adult attachment. Furthermore the study includes the following hypotheses: (1) there will be higher base rates of insecure adult attachment, (2) mothers classified with Autonomous (Secure) states of mind with respect to attachment will show higher scores on all four mother dimensions of the Emotional Availability Scales (EAS) than mothers with non-autonomous attachment, and (3) children's EAS scores will also differ as a function of parental attachments. Specifically, children of mothers with Autonomous AAIs are

predicted to receive higher scores on responsiveness and involvement than children of non-Autonomous mothers.

CHAPTER III

Methodology

I. Participants

Forty-six mother-child dyads participated in this study. Subjects were mother-child dyads with 14-28 month old children who had participated in a larger study (n=719; including 307 parents and 412 adolescents) of the impact of HIV/AIDS on parents with AIDS (PWA) and their adolescent children (Rotheram-Borus, Leah, Reid, & Draimin, 1998; Rotheram-Borus, Lee, Lin, & Lester, 2004; Rotheram-Borus**,** Weiss, Alber, & Lester, 2005; Rotheram-Borus**,** Lee, Leonard, Lin, Franzke, Turner, Lightfoot, & Gwadz, 2003). In that study, parents living with AIDS and their adolescent children were recruited into the study from the New York State Human Resources Administration Department of AIDS Services. At the time of recruitment, the adolescents' mean age was 15 years.

The sample is made up of young adults subjects are predominantly economically disadvantaged and people of color. Many live in neighborhoods devastated by poverty and a lack of social and educational supports. Furthermore, the majority of the subjects have experienced major ruptures to their relationships with caregivers due to abandonment, loss through death, domestic violence, and substance abuse. In addition, many have witnessed or experienced neighborhood violence directed at close friends, family, and self, or experienced homelessness, foster care and group home placement, or a combination of these. Twenty-two of the 46 mothers (47.8%) subjects, experienced the death of the parent with HIV. All participants met the following

criteria for participation in the adult attachment/emotional availability study: each mother lived with and provided daily care for her child, each child was between 14 and 28 months of age, and each child's maternal grandparent was diagnosed with HIV. Of the infants, 25 were 14 to 16 months old (1 year old; 54.3%) and 21 were 26 to 28 months old (2 years old; 45.7%). Mothers in the sub-sample do not differ significantly in ethnicity, education level, or family income from the adolescents in the larger sample.

Twenty-seven subjects (58.7%) were Latino or Hispanic, 12 (26.1%) were Black, 5 (10.9%) were Biracial, one (2.2%) was Asian, and one (2.2%) was unidentified. Of those subjects who identified their ethnicity as Latino/Hispanic, 24 (88.9%) were Puerto Rican, 2 (7.4%) were Dominican, and one (3.7%) identified as "Other". At the time of this study, the mean age for the mothers was 22.3 years. The mothers' ages ranged from 18-26.

II. Procedure

Data for this study were drawn from observations of mother-child interactions during a lab visit conducted when the infants were 14-16 months and 26-28 months of age. The experimenters obtained informed consent before lab assessments began. In addition, the mother provided caregiver information for their children and filled out the Child Behavior Checklist (CBCL; Achenbach, 1992). The child's development was assessed using the Bayley Scale of Infant Development. Children and their mothers were observed in the Strange Situation procedure (Ainsworth et al, 1978) and a 12-minute sequence of mother-

child interaction activities consisting of teaching tasks, toy play, clean-up, and playing with no toys. Within one month of the lab assessment, an interviewer conducted a home visit and completed the Home Observation for Measurement of the Environment (HOME; Caldwell, Heider, & Kaplan, 1966). Following the lab assessment, mothers completed the Adult Attachment Interview (Main & Goldwyn, 1984). In return for their participation in the study, mothers received a $50 stipend after completion of each phase of data collection. Only data from the Adult Attachment Interview and mother-child interaction are relevant for the proposed study.

III. Measures

Adult Attachment Interview (AAI)

The Adult Attachment Interview (George, Kaplan, & Main, 1985) is a semi-structured, clinical interview used to assess an adult's current "state-of-mind" and representations of early attachment relationships in the family of origin. Subjects are asked for five adjectives to describe their relationship to each parent (or significant caregiver) in childhood, and then for specific biographical episodes that support the adjectival descriptors. The interview also elicits information about separations, threats, abuse, rejection, and responsiveness of parents in instances of illness, physical and emotional pain; and how, if at all, the relationship has changed over time. In addition, they are asked about any major loss experiences. The interview is audio taped then transcribed verbatim for later scoring using a system of content and narrative analysis. All errors and

hesitations are recorded. The interview is analyzed using a system developed by Main and Goldwyn (1985-1996). The process of analysis uses a set of fourteen 9-point rating scales, used in an attempt to (1) ascertain probable childhood experience with each parent, and (2) assess his or her current state of mind with respect to these experiences as revealed in their discourse. The analysis of the interview is based upon the speaker's ability to produce a coherent and clear narrative, to collaborate actively with the interviewer, and to actively monitor his or her presentations during the course of the interview. The analysis of the interview is understood in terms of the concept of cooperative discourse as presented by linguist Grice (1975, 1989). He suggested that rational discourse requires adherence to vs. violation of four specific conversational maxims:

Quality – "be truthful and have evidence for what you say"

Quantity – "be succinct, and yet complete"

Relation – "be relevant to the topic as presented"

Manner – "be clear and orderly"

Patterns of scores and the study of the transcript are used to classify the speaker's current "state-of-mind in regard to attachment". The three organized categories of states of mind are Secure/Autonomous (F), Dismissing (Ds), and Preoccupied (E). Participants classified as Secure/Autonomous show a balanced, integrated view of attachment experiences, whether these experiences were positive or negative. In contrast, the Dismissing and Preoccupied categories suggest an insecure "state-of-mind". The Dismissing participants ignore attachment-relevant issues and experiences. They may appear

defensive, may idealize their parents, or have few memories of early childhood.

The Preoccupied participants show significant anger when describing early experiences or may appear to be mentally entangled in early relationships. There is a fourth category of unresolved loss and/or trauma (U/d). Individuals classified as Unresolved demonstrate disoriented speech, lapses in reasoning and/or lapses in discourse. They may also report extreme reactions to the trauma or a displacement of affect onto a less traumatic experience. The Unresolved category is not considered a "state of mind"; therefore, the individual is assigned as a secondary category if the participant demonstrates signs of confusion or lapses in monitoring of discourse while discussing loss or trauma.

The interviews were coded using Main, Goldwyn, and Hesse's (2002) coding system. Four coders, certified as reliable by Mary Main, coded the 46 transcripts. They were blind to mother-child interaction EA scores. One additional coder, certified as reliable by Mary Main for F/Ds/E, coded interviews for reliability. Twenty transcripts (43%) were randomly chosen as a continuing check of reliability. If the raters mismatched on classification, a third coder coded the transcript or the primary coder's classification was used as the default.

Mother-child interaction

The mother-child interaction was assessed in the following way: In Episode 1 (2 minutes), the parent was asked to work on an age-appropriate puzzle with her child. In Episode 2 (2 minutes), the parent was asked to work on a more difficult puzzle. In Episode 3 (4 minutes), the puzzles were removed and

a toy box bought into the room. The parent and child were encouraged to play with any toy/s of their choice. In Episode 4 (2 minutes), the parent and child were asked to clean up the toys by placing them back in the toy box. In Episode 5 (4 minutes), the toy box was removed from the room and the parent is asked to play social games with the child. Minimal instructions were given to the parent in each episode and the short duration of each episode made it possible to evaluate the impact of stress on the dyad.

Mother-child interactions were coded using the Emotional Availability Scales – 3rd Edition (Biringen, 1999). The scale does not require an observer to make judgments about a "core" or "trait" of emotional availability, only about particular styles in a relationship context. Similar to the Ainsworth sensitivity scale, the EA scale is highly global and emphasizes behavioral style, rather than discrete behaviors. For example, the number of times a mother smiles at her child is not counted: what is assessed is the quality of the interaction, the affect pervading the exchange, and the child's reaction to the parent's affect and presence.

EA scales consist of four parental dimensions: sensitivity, structuring, nonintrusiveness, and nonhostility, and two child dimensions: child's responsiveness to the parent and the child's involvement of the parent.

Parent Dimensions:

1. Parental Sensitivity. Parental sensitivity includes all the qualities described by Ainsworth (Ainsworth et al., 1978) in the original sensitivity scale: parental accuracy in reading infant signals, and appropriate

responsiveness to such signals and communication. A characteristic that is important to the judgment of sensitivity is appropriateness of parent's affect. The parent is not rated on "apparent" or pseudo-sensitivity but on authentic and spontaneous positive affect measured through congruence of verbal and nonverbal modes of emotional expression. Clarity of perceptions and appropriate parental responsiveness are also important. For example, if a child begins to show frustration during the parent-child play, it is important for the parent to recognize such signals and to adjust her own behavior accordingly. Another key component to rating sensitivity is awareness of timing. A sensitive parent is careful not to introduce abrupt transitions between activities, or overstimulate the child. Flexibility in attention and behavior is also assessed. A flexible parent can attend to activities or goals and still be aware of and respond to the baby. An insensitive parent will "tune out" or become preoccupied when absorbed in other tasks. Parental acceptance is another key component of sensitivity. This is achieved by examining the manner in which the parent addresses the child. (I.e., how accepting or rejecting the parent is toward the child). Much of the above-mentioned behaviors depend on conflict resolution between mother and child. How dyads move from mismatched to synchronous states is as important as the quality of synchronous states.

2. Parental Structuring. This scale assess the ability of the parent to structure the child's play in a way that are well-received by the child. The construct is dyadic; therefore, adequate structuring requires that the

parent's bids or attempts to scaffold are successful. An optimally structuring parent provides consistent clues and suggestions in a relaxed way. The scale takes into account interactions with a child that has developmental disabilities. The child does not have to perform optimally for the mother to be optimally structuring. Rather, the parents adjust structuring behaviors to meet the needs of the child.

3. Parental Nonintrusiveness. The scale refers to the ways a parent makes herself available to the child without intruding on the child's sense of autonomy. Structuring and nonintrusiveness are related, although a parent may structure relatively well but is slightly too directive. In that case, the parent may receive a high score on structuring but a lower score on nonintrusiveness. Nonintrusiveness is also a dyadic construct. For example, a parent may seem overstimulating or may engage in seemingly rough play. If the child is very engaged in such play and enjoying the interaction, then the parent is not considered intrusive. On the other hand, a parent would be considered intrusive if the child is clearly signaling that the overstimulating parental behavior is upsetting.

4. Parental Nonhostility. The parental nonhostility scale refers to the ways a parent talks to or behaves toward a child that are not abrasive, confrontational, or impatient. The hostility evidenced need not be directed at the child. Background boredom, impatience, discontent, and anger are taken into account. In other words, covert, as well as overt signs of hostility, are considered.

Child Dimensions:

1. Child Responsiveness to Parent. This scale refers to the child's ability to and interest in exploring on his or her own, as well as to respond to the parent's bids for attention in an affectively available way. In rating child responsiveness, the coder waits for a parental bid for interaction and then observes the child's response. This scale is the counterpart of the parental sensitivity scale; as such overall affect is taken into account.

2. Child Involvement with Parent. This scale refers to the ability and interest of the child to invite the parent into play. An optimally involving child will make the parent his or her audience or engage the parent as a player or support player in activities. A key element for this scale is the balance between the child's autonomy in play and the interest in drawing the parent into play.

Three coders, who were certified as reliable by Zeynep Biringen, coded the mother-child interaction videotapes. All coders were blind to the AAI classifications of the mothers. One coder scored 28% (13) of the tapes, a second coder scored 20% (9), and this author scored 35% (16) of the tapes. Eight tapes (17%) were randomly chosen as a continuing check of reliability. If the raters mismatched on scores, the score was determined by conferencing in the presence of a fourth coder.

CHAPTER IV

Results

Analyses were conducted among the 4-group and the 3-group classifications at four levels. First, descriptive information on attachment classifications and emotional availability (EA) will be presented, providing a basis for comparing data from this sample with data from normative samples. Second, the association between emotional availability and loss of PWA will be analyzed using Multivariate Analysis of Variance (MANOVA). Third, the association between emotional availability and adult state of mind in regard to attachment will be presented using attachment classifications according to the three-and four category systems. Lastly, the associations between emotional availability and coherency scores on the Adult Attachment Interview will be computed.

Two hypotheses will be tested:

(1) That mothers in our sample who have lost a parent to AIDS (PWA) will differ from mothers who have not yet lost their parent to AIDS on levels of emotional availability,

(2) That mothers in our sample with Autonomous states of mind will show higher scores on the four maternal dimensions of the EAS, and that children of Autonomous mothers will receive higher scores on responsiveness and involvement on the EAS.

Descriptive Statistics

Tests for Age

This sample consisted of two groups of children; those aged 14 - 16 months and those aged 26-28 months. Tests for age of the children was nonsignificant for the Emotional Availability scores ($F(6, 39)=1.86$, $p=.117$), thus subsequent analyses were collapsed across this variable.

Distribution of Attachment Classifications

Observed Adult Attachment Interview classifications for this sample are presented in the both the four- and three- category distributions. In these analyses, Cannot Classify (CC) participants from this sample were included in some of the analyses presented. For 3-category descriptive data, CC mothers are "forced" into the secondary classification, two as Preoccupied and three as Dismissing. The distribution of attachment classifications for the 3-group coding was as follows: Secure (F; n = 21, 46.7%), Dismissing (D; n = 12, 26.7%), and Preoccupied (E; n = 12, 26.7%). One participant was eliminated from the 3-group classification because she had an alternate classification of CC. The four-group classifications, CC was included in the "Unresolved" category. The observed distribution was: Secure (F; n = 15, 32.6%), Dismissing (Ds; n = 7, 15.2%), Preoccupied (E; n = 7, 15.2%), Unresolved/Cannot Classify (U; n = 17, 37%), as observed in Table 1.

In a meta-analysis of available non-clinical adult attachment cases (van IJzendoorn & Bakermans-Kranenburg, 1996) the three-way coding was 58%

Secure, 24% Dismissing, and 18% Preoccupied, and the four-way coding was 55% Secure, 16% Dismissing, 9% Preoccupied, and 19% Unresolved. Thus, the distribution is not in accordance with the global distributions in terms of the prevalence of adult attachment classifications in non-clinical samples. The distribution observed shows overrepresentation of Preoccupied and Unresolved states of mind and an underrepresentation of Secure state of mind.

Table 1

AAI Classification Distribution

	n = 45		n = 46	
Attachment Classification	3- group distribution		4- group distribution	
	n	**Percentage**	**n**	**Percentage**
Secure	21	46.7	15	32.6
Dismissing	12	26.7	7	15.2
Preoccupied	12	26.7	7	15.2
Unresolved/Cannot Classify	--	--	17	37

Analysis of Emotional Availability Scales

Although the dimensions of the Emotional Availability Scales are ordinal, they are analyzed as though they are continuous. For this reason, in the proceeding analysis, a MANOVA was utilized to analyze the 6 EAS subscales as dependent variables. MANOVA is the data analytic procedure employed in all comparisons of the mothers by AAI classifications. The specific approach taken

in these analyses is to first evaluate the multivariate significance of the grouping variable. If this test is at or near alpha of .05, then each of the six-univariate tests is tested for statistical significance. Finally, for those univariate tests, which are statistically significant, pairwise comparison tests are employed to distinguish among the sub-groups (see table 2).

Table 2
EAS scores by 4-group AAI Classification

	Secure n=15			Dismissing n=7			Preoccupied n=7			Unresolved/CC n=17		
EAS	**Mean**	**Range**	**SD**	**Mean**	**Range**	**SD**	**Mean**	**Range**	**SD**	**Mean**	**Range**	**SD**
Maternal												
Sensitivity	5.13	3-8	1.06	4.43	2-7	2.22	5.29	3-7	1.25	4.94	2-8	2.02
Structuring	3.40	3-5	.63	3.00	1-4	.82	3.43	3-4	.54	3.15	2-5	.86
Non-intrusiveness	3.47	2-5	.74	4.00	3-5	.82	3.29	2-5	.95	3.53	1-5	1.36
Non-hostility	4.80	4-5	.41	3.86	1-6	1.22	4.43	4-5	.54	4.00	2-5	1.00
Child												
Responsiveness	4.27	3-6	.88	3.86	1-6	1.95	4.86	3-6	1.07	4.47	2-7	1.59
Involvement	4.07	2-6	1.10	3.71	2-5	1.25	4.14	3-7	1.35	4.00	1-6	1.77

Loss of PWA and Emotional Availability:

In order to test the hypothesis that young mothers who had lost a parent to AIDS would differ in their capacity to be emotionally available to their children, the relationship between loss status and EAS was first compared. Table 3 presents the descriptive statistics, including means, standard deviations and sample sizes, for mothers with loss of PWA versus the mothers with no loss of PWA for each of the six EAS outcomes in this analysis. The multivariate test indicated a marginally-significant effect of loss on the EAS scales (Wilk's lambda: $F(6, 39) = 2.28$, $p = .056$). However, the Wilks' Lambda is not a fully appropriate test to accurately estimate statistical significance in subgroups with fewer than 30 subjects. Further analysis of the homogeneity of variance for the univariate results is necessary. Inspection of the six-univariate significance tests indicates that all six EA subscales showed statistically significant differences between the two loss groups. Specifically, mothers with loss received significantly higher mean scores on the six EA dimensions than mothers without loss. These findings may be compromised violation of the homogeneity of variance assumption for the Non-Hostility and Involvement subscales. The Brown-Forsythe test was employed as a robust test of group differences for these two subscales. By this standard, the two subgroups of mothers did differ significantly on these measures: Non-Hostility ($F(1, 44) = 12.32$, $p = .001$) and Involvement ($F(1, 44) = 9.15$, $p = .004$). Subsequent to correction, inspection of the p-values for all possible comparisons for the two groups of mothers indicates the mothers with loss of PWA report significantly higher mean scores on the six EAS dimensions

than mothers with no loss of PWA. Thus, young mothers who had lost a parent to AIDS scored significantly higher on all six dimensions of the Emotional Availability Scale (i.e., were more sensitive) than did the mothers who had not lost a parent to AIDS.

Table 3

Emotional Availability Scale scores for Mothers with Loss of PWA and Mothers with No Loss of PWA

EAS Dimensions	**Loss of PWA n = 22**		**No Loss of PWA n = 24**		***F Ratio (1, 44)***
	M	**SD**	**M**	**SD**	
Maternal					
Sensitivity	5.773	1.2699	4.250	1.6485	*12.152***
Structuring	3.568	.6600	2.958	.8065	*7.792***
Non-intrusiveness	3.955	.7854	3.167	1.1293	*7.414***
Non-hostility	4.727	.5505	3.917	.9743	*12.322***
Child					
Responsiveness	4.955	1.0455	3.833	1.4346	*9.033***
Involvement	4.591	1.0075	3.458	1.5030	*9.145***

*p<.05
**p<.01

Attachment Classification and Emotional Availability:

In order to test the hypothesis that attachment status will affect a mother's capacity to remain emotionally available to her child, the mothers' EAS scores in the four-group category (Secure, Dismissing, Preoccupied, and Unresolved/ Cannot Classify) were compared. Table 4 provides descriptive statistics for each EAS dimension by attachment classifications using a 4-group category distribution. The multivariate F indicates that four subgroups differ on the six EA dimensions taken together as a set ($F(18, 105.14) = 1.870$, $p = .026$). Inspection of the six-univariate significance tests (EA) indicates that only for Non-Hostility is there a statistically significant difference among the four subgroups ($F(3, 42) = 3.27$, $p = .030$). However, this finding may be compromised by violation of the homogeneity of variance assumption ($F(3,42) = 6.617$, $p = .001$). Therefore, the Brown-Forsythe test was conducted, which indicated that the univariate effect of attachment on Non-Hostility was marginally significant ($F(3,42) = 3.022$, $p = .059$). Visual inspection of the p-values for all possible pairwise comparisons among the nonhostility means for the four subgroups of mothers indicates that 1) the mothers classified as Dismissing report significantly lower mean nonhostility scores (3.86) than do the mothers classified as Secure (4.80, $p=.017$), and 2) the mothers classified as Unresolved report significantly lower mean nonhostility scores (4.00) than the mothers classified as Secure (4.80; $p=.009$). Given this result, the data provide only partial support for the claim that the four-group classification of attachment has a significant effect on EAS.

Table 4

Means and standard deviations for Emotional Availability Scale scores by four-group attachment classifications

EAS Dimensions	Secure (n = 15)		Preoccupied (n = 7)		Dismissing (n = 7)		Unresolved/CC (n = 17)		*F (3, 42)*
	M	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**	
Maternal									
Sensitivity	5.13	1.060	5.29	1.254	4.43	2.225	4.94	2.015	*ns*
Structuring	3.40	.633	3.43	.535	3.00	1.155	3.15	.862	*ns*
Non-intrusiveness	3.40	.743	3.29	.951	4.00	.817	3.53	1.375	*ns*
Non-hostility	4.80	.414	4.43	.535	3.86	1.215	4.00	1.000	*3.022**
Child									
Responsiveness	4.27	.884	4.86	1.069	3.86	1.952	4.47	1.586	*ns*
Involvement	4.07	1.099	4.14	1.345	3.71	1.254	4.00	1.768	*ns*

*p<.05
**p<.01

In the next analysis, the three-category classification was used: Secure (F), Dismissing (Ds), Preoccupied (E). Table 5 provides descriptive statistics for each EA dimension by the 3-category attachment classifications. The multivariate test indicates a significant effect of the three-category attachment classification on the six EAS subscales taken together as a set ($F (12, 74) = 2.016$, $p = .034$). Only one of the six-univariate significance tests was significant: Non-Hostility showed a statistically significant difference among the three subgroups of mothers ($F (2, 42) = 6.805$, $p = .003$). As this finding may be compromised by violation of the homogeneity of variance assumption ($F (2,42) = 10.707$, $p = .000$), the Brown-Forsythe test was employed. The three subgroups of mothers did in fact differ significantly on Non-Hostility ($F (2, 23.089) = 5.380$, $p = .012$). Post-hoc comparisons of the 3 subgroups indicated the following significant differences on Non-Hostility: Mothers with Dismissing AAIs scored significantly lower on Non-Hostility (3.67) than Secure mothers (4.71). These data support the premise that mothers classified as Dismissing showed significantly greater evidence of covert and overt hostility in interaction with their young children than did Secure mothers.

Table 5

Means and standard deviations for emotional availability by three-group attachment classifications

	Secure (n = 15)		Preoccupied (n = 7)		Dismissing (n = 7)	
	M	**SD**	**M**	**SD**	**M**	**SD**
Maternal						
Sensitivity	5.43	1.17	4.83	1.53	4.17	2.21
Structuring	3.50	.67	3.17	.58	2.83	1.03
Non-intrusiveness	3.67	.80	3.17	1.19	3.58	1.24
Non-hostility	4.71	.46	4.17	.84	3.67	1.15
Child						
Responsiveness	3.75	1.71	4.50	1.45	3.75	1.71
Involvement	4.33	1.11	3.83	1.75	3.50	1.45

Variations in Attachment Within the Unresolved Attachment Category

The 12 mothers receiving a U classification were further examined. Of these, 6 were classified Unresolved with an Autonomous secondary classification (Secure; U/F), and 6 were classified as Unresolved with an insecure secondary classification (U/Ds, U/E, U/CC). There was a statistically significant difference on EA dimensions for the two groups. Mothers who received a U/F classification scored statistically significantly higher on Sensitivity, Non-intrusiveness, Non-hostility, and Involvement than did mothers receiving classifications of U/Ds, U/E, and U/CC combined. Table 6 provides descriptive statistics for the EAS dimensions by attachment classification. The multivariate test showed that the two subgroups did not differ on the six EA scales taken together as a set ($F(6, 5) = 1.508$, $p = .335$). Because of small group size, further analysis of the homogeneity of variance and/or the univariate results is possible. Inspection of the six-univariate significance tests (EA) indicates that the two subgroups differed on Sensitivity ($F(1,10) = 8.459$, $p = .016$), Non-Intrusiveness ($F(1,10) = 5.548$, $p = .040$), Non-Hostility ($F(1,10) = 8.448$, $p = .016$) and Involvement ($F(1,10) = 7.478$, $p = .021$). Only for Involvement was the homogeneity of variance assumption violated ($F(1,10) = 7.813$, $p = .019$). The Brown-Forsythe test indicated that the two subgroups of mothers differed significantly on Involvement ($F(1, 10 = 7.478$, $p = .027$). Given this result, the data support the claim that the two subgroups of mothers differ on 4 out of six measures of the EA: Sensitivity, Non-intrusiveness, Non-hostility, and Involvement. Mothers who received a U/F classification had statistically significantly higher mean scores on Sensitivity

(6.17), Non-intrusiveness (4.17), and Non-hostility (4.50) than did mothers receiving U/Insecure classifications (3.67, 2.67, 3.33, respectively). Thus, a mother's security status interacts with the Unresolved classification in ways that directly impact her ability to be sensitive to her child. It is of note that five of the six women in the U/F category had unresolved loss and no unresolved physical or sexual abuse; one experienced both loss and abuse.

Table 6

Means and standard deviations for Emotional Availability Scale scores by Unresolved attachment classifications

EAS Dimensions	U/Secure (n = 6)		U/Insecure (n = 6)		*F ratio (1, 10)*
	M	**SD**	**M**	**SD**	
Maternal					*8.459**
Sensitivity	6.17	1.169	3.67	1.751	*ns*
Structuring	3.75	.758	2.83	.753	*5.548**
Non-intrusiveness	4.17	.753	2.67	1.366	*8.448**
Non-hostility	4.50	.548	3.33	.817	
Child					
Responsiveness	5.33	1.033	3.67	1.633	*ns*
Involvement	5.00	.894	2.83	1.722	*7.514**

Key: U/Secure = U/F, U/Insecure = U/Ds, U/E, U/CC
*p<.05
**p<.01

CHAPTER V

Discussion

The central question of this study was whether maternal representations of attachment would be related to the quality of observed mother-child relationship in an ethnic-minority sample affected by multiple risks and grandparental HIV and AIDS. To understand the mother's internal working models of attachment, the Adult Attachment Interview was administered (George, Kaplan, & Main 1984). To quantify the mother-child relationship, the mothers were videotaped in a 12-minute interaction with their infants that was coded using the Emotional Availability Scale – 3rd Edition (Biringen, Robinson, & Emde, 1998). Four major points emerged from this study: (1) the distribution of adult attachment classification was skewed toward insecurity in this population, (2) mothers who experienced the loss of a parent with AIDS were more sensitive, structuring, less intrusive, and less hostile in interactions with their infants than mothers whose parent with AIDS was still alive, (3) mothers with AAIs classified as Dismissing and Unresolved were found to be more hostile in interactions with their infants, and (4) mothers who were classified as Unresolved with a secondary classification of Secure were found to be more caring and loving in relation to their child when compared to mothers classified as Unresolved with an underlying insecure secondary classification (Dismissing, Preoccupied, or Cannot Classify).

Visual inspection of the distribution of attachment classification (32.6% Secure, 15.2% Dismissing, 15.2% Preoccupied, and 37% Unresolved including

Cannot Classify) shows that the sample appeared to be skewed toward insecure and Unresolved states of mind when compared to low-risk, nonclinical samples. In a meta-analysis of available non-clinical adult attachment cases (van IJzendoorn & Bakermans-Kranenburg, 1996) the four-way coding was 55% Secure, 16% Dismissing, 9% Preoccupied, and 19% Unresolved. This classification distribution in this study was 32.6% Secure, 15.2% Dismissing, 15.2% Preoccupied, and 37% Unresolved/Cannot Classify. Thus, this distribution is not in accordance with the global distributions of non-clinical samples in terms of the prevalence of adult attachment classifications. There is an overrepresentation of Preoccupied and Unresolved states of mind and an underrepresentation of Secure state of mind.

Based on the research findings from the larger study from which this sample was taken, (Rotheram-Borus et al, 1998; Rotheram-Borus et al, 1999, Rotheram-Borus et al, 2005), and from a cursory visual examination of information from the AAI, it is clear that the mothers experienced a myriad of stressors during early childhood and adolescence. For example, in addition to growing up with a parent with AIDS, the mothers also experienced multiple caregivers and/or repeated foster care placement, parental drug or alcohol abuse, witnessed domestic violence, or were the victims of violence or sexual abuse, poverty, and homelessness. Given the traumatic and extremely stressful early lives of these young mothers, it is evident that few, if any, received the benefits of a secure and loving relationship with attachment figures. Thus, the distribution of attachment described in this sample is unsurprising. The

attachment classification distribution of this study resembles the distributions found in low SES samples: 39% Secure, 25% Dismissing, 8% Preoccupied, and 28% Unresolved (van IJzendoorn & Bakermans-Kranenburg, 1996). At the same time, the percentages for Secure in this sample are four times larger than the distribution for clinical samples (8%; van IJzendoorn & Bakermans-Kranenburg, 1996). This makes clear that despite traumatizing early experiences, one can still attain security of mind and attachment.

The most unexpected finding of this study was that regardless of attachment classification, analyses of the EAS scores indicate that maternal loss is positively associated with maternal and child behavior: Mothers who had experienced the death of the parent with AIDS were assessed as more sensitive, structuring, less intrusive and less hostile than mothers whose PWA is still alive. In addition, the children of the mothers with loss were more involving and responsive with their mothers. The mothers displayed appropriate and genuine affect in interactions with their infants. This finding seems in contradiction of attachment theory and what is known and expected of adolescents who have suffered a profound loss.

Several factors may have contributed to this finding. In this sample, the mothers with loss of PWA were young when they suffered the loss; the mean age was 17.45, with a range of ages from 13-22. Youth in minority populations impacted by financial and social needs are forced to take on adult responsibilities, such as caring for younger siblings, working to help the family, or assuming other major household responsibilities (Bekir et al 1993, Boszormenyi-

Nagi & Spark, 1973). The added stressor of parental illness thrusts these adolescents into even further upheaval and turmoil. Oftentimes they must also assume the role of taking care of their own parent (Compas et al. 1994) or they may face depression or increased substance abuse (Bekir et al, 1993; Wallace, 1996). For the mothers in this sample, the emotional experience of being parented was most likely hindered by parental illness, parental lifestyle, and by experiences of repeated abuse and trauma. At the same time, these findings also suggest resilience when faced with loss, trauma, and extreme stress.

Parkes (1972; as cited by Pine, 1989) believes that the level of grief and bereavement is influenced by feelings of "deprivation" one feels at the loss of the love and security provided by the deceased. A large number of mothers in this sample were abandoned, neglected, or abused by the PWA or other family members; thus, the PWA may not have provided a real sense of protection. As youth, they may have been left in the care of relatives and strangers or placed in foster care or group homes. For some mothers, the PWA probably was not a source of love and support but a possible source of fear and potential danger. Consequently, they grew up with few examples of good and loving parenting and had little to mourn. When the PWA became ill, the youth may have felt obligated to care for the parent despite the high levels of stress and violence they may have experienced at the hands of the parent. To a larger extent, their sense of autonomy and agency may have been negatively impacted by the parent's presence. After giving birth to their own children, many of the mothers in this sample continued to live with and care for the PWA. The PWA may have

continued to wreak havoc and cause extreme stress on the household, likely because of their continued disruptive lifestyles, and/or the progression of their illness. Adolescents of parents with HIV have been found to experience the highest level of distress more than a year prior to the death of their parents (Rotheram-Borus, Weiss, Alber, & Lester, 2005). When the PWA died, the disruptive influence and the high stress levels no longer existed. The mothers were able to transform and transcend the negative experiences of childhood to better parent their own children.

Another factor that may have led to this finding is that illness by AIDS continues to be a "death sentence" for poor, minority groups. With the imminent death of the parent with AIDS, their family, and more specifically their children, may begin the mourning process long before the actual death. For example, it has been found that adolescents of parent with HIV experience anticipatory anxiety, depression, and somatic complaints a year prior to the parent's death (Rotheram-Borus et al, 2005).

An additional factor that may have contributed to the findings of this study is the stigma still attached to illness and death by AIDS. Good parenting requires that parents have the ability to accept and utilize emotional and community supports in their environment. Stigmatization interferes with the ability to seek support from outside sources, friends, and family. Individuals with AIDS and the family members of PWA are a marginalized and disenfranchised population. Doka (1989) coined the term "disenfranchised grief" to describe a "loss that is not or cannot be openly acknowledged, publicly mourned, or socially

supported" (p. 4). It may be that the mothers with a PWA suffer not only the effects of their parent's chronic illness, but also suffer feelings of isolation, shame, and guilt associated with the illness itself. They are unable to reach out to individuals in their communities or to professionals when faced with the everyday struggles of parenting and the responsibility of caregiving a chronically ill parent.

When the PWA dies, their adolescent and adult children are free of the stigma and are then better able to utilize internal and external resources without fear or shame. In part, this may explain the findings of this study. While the parent with HIV is alive, the mothers are unable to respond effectively to their infants' needs because their attention is diverted away from the infant. Caring for a needy family member may tax their emotional resources to the point there they have little left for their own children. However, once the parents are gone, the mothers are freed from familial responsibility and obligation and are then able to fully attend to the emotional needs of their children. The fact that they are able to establish a relationship with their children, which in many ways is profoundly and markedly different from their own childhood relationships, speaks to their psychological strength and resilience.

The last major finding of this study demonstrated that mothers classified as Unresolved, with an underlying Secure "state of mind" were more sensitive, less intrusive, and less hostile, and their infants were more involving of the parent when compared to Unresolved mothers with a secondary classification of Dismissing, Preoccupied, or Cannot Classify. Mothers classified as Unresolved

and Secure were better able to respond to their infant's behavioral and emotional needs during dyadic interactions than other Unresolved mothers. They were able to provide scaffolding and support without becoming intrusive or frustrated with their children's ability, or lack thereof, to complete a task. In other words, despite the disorganized and disoriented presentation when describing experiences of loss and abuse, the mothers with underlying security were able to rise above the psychological effects of abuse and/or loss to be more emotionally available to their children.

To understand what the prevalence of unresolved loss and abuse might be on a multi-risk population, the AAI transcripts in this study were examined for mention of these events. Twenty-two of the 46 subjects had experienced loss of the parent with AIDS (PWA) either as a child or as adult and five of those (22.7%) revealed unresolved loss. Twenty-two of the 46 women (47.8%) had experienced physical and/or sexual abuse and only one was unresolved with regard to abuse experiences. Of the 12 Unresolved subjects, 6 were classified U/F, 2 were classified U/Ds, 3 were classified U/E, and 1 was classified U/CC. Overall, mothers receiving a classification of Unresolved did not display fewer emotionally available behaviors than did mothers with an organized classification; however; when Unresolved states of mind were accompanied by secondary insecure classifications of Ds, E, and CC, there was a significant decrease in positive emotional availability indicators when interacting with their children. This finding can be understood as a function of the underlying attachment classification.

The Unresolved classification is assigned when disorganized discourse is evident in discussion of physical and/or sexual abuse or loss through death of significant people. Disorganized or disoriented discourse is evidenced by lapses in reasoning, avoidance of topic, tangentiality, time or space confusion, long silences, feelings of causality, and behavioral disorganization. Unresolved status does not imply a "state of mind" but a manifestation of a dissociative process evident solely when discussing loss or abuse. Therefore, an alternate or secondary classification is assigned that best describes their overall narrative style. For example, an individual may demonstrate a rich and elaborate discourse with high coherency. They show no signs of contradiction between semantic and episodic memories and they are open to exploring and evaluating their thoughts and ideas during the course of the interview. Conversely, when discussing incidents of loss or trauma, their speech becomes highly disorganized and extremely disoriented. These individuals will receive classifications of Unresolved with an alternate classification of Secure. For this study, it seems that underlying security may provide protection for the mother and children against the damaging affects of unresolved loss and/or abuse. Using Fonagy's conceptualization of reflective functioning (Fonagy, 1998), a mother with an alternate classification of Secure may be able to recognize her child's emotional experiences, is able to regulate and modulate her own affective experiences, and can respond in a coherent and organized manner toward her child despite her own disorganized and fragmented mental state when discussing loss or trauma.

Although prior studies have indicated that the quality of mother-child relationships is predicted by the mother's state of mind in regard to attachment (Biringen et al, 2000; Aviezer et al, 1999; Siri-Oyen, 1997; Siri-Oyen et al, 2000), the results of this study only partially support the hypothesis that mothers with Autonomous (Secure) classifications would be more likely to have higher scores on dimensions on the EAS than mothers with insecure attachment. The results indicate that mothers with Dismissing AAIs and mothers with Unresolved AAIs were more likely to display hostile behaviors toward their infants when compared to mothers classified as Secure. When engaged with their infants, the mother classified as Dismissing and those classified as Unresolved demonstrated a parenting style characterized by covert and/or overt hostility. As per the EAS, covert hostility includes, but is not limited to, speaking to the infant in a slightly raised voice, showing signs of boredom, or impatience, or irritability, and rolling eyes. Overt hostility includes hitting the child, pounding the table, being overly harsh, abrasive or demeaning, threatening, teasing, or shaming the child. This finding makes sense when one examines the interactional style of individuals demonstrating Dismissing and Unresolved attachment representations.

For the most part, individuals classified as Dismissing have experienced early caregivers as rejecting, unloving and/or cold, but avoid the feelings associated with this experience by either normalizing it or idealizing the parent. They have adapted a hostile, detached, or derogating pattern of responding in relationships as a way of managing anxiety associated with negative early attachment experiences (Crowell, Fraley, & Shaver, 1999). They deny the

importance of attachment related experiences and deny any effects on their overall personality organization. Consequently, they devalue or dismiss relationships. Prior research supports the finding of this study. For example, it has been found that individuals who have developed a Dismissing state of mind in regard to attachment report more externalizing problems (Dozier, Stovall, & Albus, 1999) and are more prone to feelings of joylessness, disinterest, and disengagement (Adam, Gunnar, & Tanaka, 2004). Slade, Belsky, Aber, and Phelps (1999) found that mothers classified as Dismissing scored higher on anger dimensions of the Parent Development Interview. Mothers classified as Dismissing have also been found to minimize, ignore, or respond negatively to their infant's negative affect (Dozier & Kobak, 1992; Haft & Slade, 1989).

Similarly, mothers in this study deemed Unresolved for issues of loss and abuse demonstrated covert and/or overt hostility in interaction with their infants. They may have demonstrated a diffuse level of discontent, discomfort, or boredom not necessarily directed at the child. Individuals classified as Unresolved demonstrate discourse and thinking that is disorganized and/or disoriented when discussing loss through death and abuse. They have been unable to deal with and integrate the emotions related to the traumatic experiences. It is believed that the lack of resolution of traumatic events leads the parent to dissociate when reminded of the trauma. In some cases, the child himself can become the source of fear. The parent may appear frightened of or frightening to the child in interactions. Prior research has found that mother classified as Unresolved appear to lack coping strategies for dealing with intense

emotional situations (Creasey, 2002) and they had difficulty regulating their emotions and responding to emotions in their children (DeOliveira, Moran, & Pederson, 2005). It is possible that the mothers in this study who were classified as Unresolved reacted with hostility toward their children when reminded of the trauma.

Clinical Vignettes

In the following section, I will provide clinical examples as a means of illuminating the findings of this study. It is suggested that mothers who have suffered the loss of the PWA are more sensitive and structuring, and less intrusive and hostile than mothers whose PWA is still living. In the following two vignettes I will first describe a mother who experienced the loss of the PWA, I will then describe a mother whose PWA is still living:

Digna

Digna is a 22-year-old woman who is the mother of a 1-year-old boy. She reports that she has two siblings. Up until the age of 9 or 10, she was raised without her father at which point he came back into her life. She stated that he was an alcoholic and a batter and said she witnessed violence against her mother by her father on several occasions. When Digna was 13 years old, her mother had a baby who died of AIDS shortly after birth. Her mother died of AIDS when she was 15 years old.

During the AAI interview, Digna's approach to the adjectival description of her mother was somewhat uncollaborative and vague. She chose one word ("happy") and then said she couldn't think of anything else. When the interviewer probed for more adjectives, she said she was "disciplined bad". She was finally able to give a total of three adjectives. She generally included her siblings in the stories she provided for each autobiographical account. Her memories did not seem personal, and to a certain extent, they did not substantiate the impression she was trying to portray. For the most part, the memories lacked detail. The failure to support the semantic presentation of the mother with concrete evidence raised her idealization score. However, the idealization of her mother was moderate since she did not openly contradict the impression she attempted to bring forth.

In discussing her relationship with her father she immediately stated she "*did not like him*", but was not derogating in her portrayal. Unlike participants who endorse a derogating dismissal of attachment figures, Digna merely stated her feelings about her father, but did not denigrate qualities of her father. At one point she said that although he was living with the family she "*didn't speak to him, talk to him, tell him anything, nothing*". The violence directed at the mother by the father that Digna witnessed put her in a position to have to defend her mother against the father. For example, she says,

> *"Uh-, um . . . . . {{8 secs}} he never like treated my mother the way he sh-, she should have been treated. Um . . . . . {{10 secs}} uh, oh . . . . . {{9 secs}} I remember one time he,-- I think he w-, yeah, I think he*

was drunk, and he, um, like, hit my mother. But I wasn't there I was at my grandmother's house. She came to my grandmother's house,-- and . . . . {{4 secs}} Then like, a few minutes later he came knocking on the door,-- and he came in and . . . {{3 secs}} I was sitting there in front of the TV, and, with um, like a bat in my hand. And,-- making sure that he won't go near my b-, mother . . . {{3 secs}} and,-- {{unintelligible phrase}} . . . . . {{7 secs}} But, um."

She also alluded to possible abuse. She made reference to being cut on her face by her father when he became angry with her. She did not display discourse related to being unresolved for abuse when relating these incidents. On the other hand, she avoided talking about how she was disciplined by her parents so there was not enough information to determine if parental disciplinary practices qualified as abuse.

Digna reported that she had two experiences with death: her baby brother and her mother. In describing her feelings about her brother's death, she described her behavior while she avoided talking about her feelings. In light of her overall impression during the interview, this avoidance seemed more stylistic than unresolved:

Interviewer: Do you recall how you felt at the time?

Digna: . . . {{3 secs}} Um . . . . . {{6 secs}} No-, I-, I went-, I went into my mother's room and I saw him there. And . . . {{3 secs}} I just laid in my mother's bed and just started crying.

Digna made a few references that could qualify for a rating of unresolved if one disregards the cultural/religious belief system of a participant. For example, she says, *"He's [her brother] better off up there than down here."* She makes the same reference when describing her mother's death: *"She much more better up there than here. 'Cause down here she would be more suffering and, - - stuff."* Digna seemed to understand that her mother and her brother are truly dead in the physical sense. Indeed, Main (personal communication) suggests that when participants make references to "living a better life" that the interviewer assess the participants' religious beliefs. When describing her mother's funeral, Digna made one reference to her mother in the present tense: *"The place where they have cof-, where they have her"*. Using the AAI scoring system, she would get a rating of a 3.5 or a 4.0. This score is not high enough to get her a U classification.

Overall, she was vague when describing her mother and seemed dismissive in describing her father, but did not seem to demonstrate multiple integrated working models regarding her parents.

During the mother-child interaction, Digna and her son were affectively positive and demonstrated facial and vocal expressiveness in keeping with a positive interaction. The affect was highly appropriate and seemed authentic and spontaneous. At the start of the interaction, Digna was going to sit at the table but instead sat on the floor when she realized the chair and the table are too big for the child to comfortably play with the puzzle. While they are completing the puzzle, she brought the puzzle pieces closer to the child so he

could reach for them. At one point, the child threw a puzzle piece, Digna very calmly said, “You don’t want to play, you want to throw things”. The child kept up a constant babble with his mother. The child did not seem interested in the second puzzle. Digna accepted his lack of interest. At the same time, she was able to set appropriate limits and boundaries on the child’s behavior in a loving manner. For instance, without becoming punitive or threatening, she stopped the child from knocking over a chair and stopped him from putting puzzle pieces in his mouth. During the toy play, the child was playing with some small balls while Digna watched. The dyad engaged in a continuous verbal exchange. At one point, Digna handed the baby a basketball, which he responded to with an immediate smile. They played ball for some time, and it appeared as if they are enjoying the game. The child looked at his mother and the mother responded with a smile or a laugh. The child responded to the mother with good eye contact, smiles, and a desire for physical closeness. During the clean-up portion of the interaction, Digna tried to get the child to put the toys away. She handed him a toy and when he dropped it in the toy box, she clapped her hands and congratulated him. During the play with no toys segment, she chose to play hide-n-seek and the child responded with laughter. When he lost interest in the game, she quickly switched to playing a singing and dancing game. Overall, Digna seemed emotionally accessible to her son. She spoke to her son in loving tones and seemed to respect him as a separate being with wants and wishes different from her own. The mother did not overpower his need for autonomy. For example, while he was playing with one toy, she attempted to get him

interested in another, but when the child showed no interest, she was able to pick up on his cues and stopped pushing further. She seemed to accept his disinterest without appearing threatened or frustrated by his individual needs and interests. She responded appropriately to her son. She adjusted her behavior to accommodate the child's interest. She did not introduce abrupt transitions between activities and did not seem to have a set agenda. She did not ignore the child or become absorbed in her own activity while he was busy playing. Even when not engaged in a verbal exchange or when silent in play, Digna kept her eyes on him. He seemed to welcome her presence in his play. She in turn seemed pleased to join him without taking on a didactic or authoritarian role.

Barbara

In contrast to Digna, Barbara was not as emotionally available to her 2-year-old daughter. Barbara is a 21-year-old woman. In childhood, her mother and father were not available on a consistent basis because of their repeated incarceration. The father was even less available than the mother. Barbara described growing up in poverty and barely having enough to eat. When she was 7 or 8 years of age, her mother burned down her husband's home with 14 people in the house and went to jail. Her maternal grandmother, who was ill, raised her until the age of 9 when she died of heart failure. After her grandmother's death, her caregiver was a young aunt who was also caring for two cousins. At the age of 12, her mother was released from jail and Barbara went to live with her. Her mother was a drug user and relapsed soon after

Barbara went to live her. The mother was sent to a drug rehabilitation program and Barbara returned to her aunt's care. From that point forward, Barbara moved back and forth between her aunt's and her mother's house until she was 16 years old, when she went to live on her own. While living with her mother Barbara witnessed violence between her mother and her mother's boyfriend. As an adolescent, she found out her mother was infected with the HIV virus. The mother's health was compromised by her drug use and, as an adolescent, Barbara felt obligated to stay with her mother to take care of her during times of illness. Her mother is still alive.

The adjectives Barbara used to describe the relationship with her mother were of a mixed constellation: "like friends", "comfortable", "confusing", "wasn't really a mother-daughter relationship", and "hard". In describing the relationship with her mother, she made a statement that provides a clear illustration of the picture she attempted to convey and at the same time seemed to demonstrate some self-reflection on the nature of the relationship: *"It really wasn't a mother-daughter relationship, it was, - - um, - - it was confusing . . . . (4 seconds) and um, I didn't realize it then but as I got older…."*. She was able to distinguish her childhood thoughts and feelings from a mature adult perspective of the relationship with her mother. In a non-derogating and non-angry manner, she was able to report that as a child she had a longing or wish for her mother to be a mother. This was indicative of her valuing and appreciating the importance of attachment relationships. Sadly, she stated that she wanted so much to be with her mother that her mother's drug use and the domestic disputes between

mother and her boyfriend did not matter. Indicative, but not exclusive to a "secure" state of mind, she was able to admit to negative feelings regarding her relationship with her mother while remaining collaborative. For the most part she described her feelings about her mother without focusing solely on the mother's behavior and without becoming lost in her discourse. However, she did seem to externalize and project some of her difficulties onto the mother. For instance, she blamed her mother for her own dropping out of school. While her mother's behavior and her lack of availability may have had a negative influence and impact on Barbara, she took no ownership for the choices she made and continues to make in her life.

In describing the relationship with her father, Barbara approached the task in a similar manner as she did for her mother. She described a relationship as being devoid of affection and love, and filled with constant disappointments. For example, shortly after her father's release from one of several incarcerations, she purchased a business suit for him to wear on job interviews but the next day he was incarcerated for robbery. As she does when discussing her mother, she continued hoping that her father would eventually be a consistent part of her life. There are also some slight differences in her approach to discussing the father that were not evident when discussing her mother. The participant seemed to lose some perspective and some emotional distance: listing the father's offenses, taking long conversational turns, and slipping into the present tense when discussing the past. At times, she appeared almost fearful of the father.

According to the AAI scoring manual, fearfulness is typically associated with E3 transcripts (fearful preoccupation with traumatic events) however a traumatic event must be identified. Using this criteria Barbara's fear of her father did not fit into the "Preoccupied" category since her fear seemed more global and not related to a particular traumatic event. At the same time she displayed a "dismissing" style by being slightly derogating of the father: *"So, um,--.it was,--that's like all I can really describe it 'cause there really wasn't,-- I look at him just like a regular man on a street."* At most, this would get her a rating of a 5.0 on the anger scale. Despite these slights slips into a "dismissing" and a "preoccupied" strategy when discussing her father, Barbara remains clear, concise, and descriptive in her discussion of her grandmother and her mother.

When discussing the grandmother, she used positive adjectives to describe her grandmother, but not the relationship she had with her grandmother. She kept the descriptors of her grandmother general and used examples that were not unique to her relationship with the grandmother. For instance, she substantiated an adjective choice by using examples related to the grandmother's interaction with the family, cousins, and friends in the neighborhood. However, she did not contradict the adjectives and was able to support her claim. In large part she described her feelings about her grandmother and the relationship they had. She was quite young when her grandmother passed away so it may be that memories of her grandmother are not as vivid and clear as is needed to perform the task optimally.

Barbara experienced the death of three family members and a close personal friend. While relating her experiences of these deaths she gave clear and concise descriptions and evidenced no disorganized or disoriented mental state. She gave a lucid narrative on the pain she experienced when her grandmother passed away: *"It's just a lost feeling. You-, it's so empty inside, and, um, you just-, I was so confused,-- I don't think I-, I don't even think it had anything to do with my age because I think if that same thing would have happen now that I'm twenty years old,-- that, I still would feel that same way 'cause it was no way that you could prepare yourself for that."*

Overall, Barbara displayed no idealization of her parents or other caregivers and there were no contradictions in the picture she was portraying. She was clearly valuing of attachment relationships and yet the global fearfulness of her father made classification difficult.

During the mother-child interaction, Barbara displayed a bland and flat affect throughout. At the same time, she was somewhat flexible in her attempts to teach the child how to complete the puzzles. She called out the names of the animal puzzle pieces and counted out the number of pieces and the number of holes in the puzzle board. Many times throughout the interaction, Barbara spoke in harsh and/or matter-of-fact tones or appeared bored and disinterested. For example, during the puzzle task she asked in an abrupt tone, "Mommy is talking to you, you paying attention?" For the most part, the child neither engaged with Barbara nor responded to the mother's bids for attention. It seemed the child enjoyed playing alone. At one point, the child started singing to herself while

Barbara was trying to show her how to put in the pieces of the puzzle. Barbara repeatedly said, “You’re not listening”.

During the toy play, Barbara immediately attempted to direct the play and the child’s attentions toward a tea set. She started acting as if she was serving tea while trying to get the child’s attention. However, when the child finally showed interest and attempted to take a teacup, Barbara said, “That’s not your cup”. Eventually the child turned her back on Barbara. Barbara seemed to withdraw from the interaction for about 30 seconds. She became absorbed in her own play and eventually started to yawn. The child attempted to engage her mother by bringing her a book. Immediately, Barbara responded, “You gonna listen?” During the play with no toys segment of the interaction, the child walked out of the room after the lab assistant. Barbara yanked her back by her arm. The child started saying, “I want to go with Grandma”. In the clean-up segment, Barbara demonstrated creativity in getting the child to put the toys in the toy box. For example, she told the little girl to put the cups “in the sink”, meaning the toy box. The child responded well. Overall, however, Barbara demonstrated a stilted and bored style of interacting with her daughter. Barbara’s timing in introducing new activities was abrupt and abrasive. It seemed she was not aware of or in tune with signals from her daughter. She seemed to make disparaging comments in an off-hand manner. This type of behavior affected the structuring and non-intrusiveness ratings. She tried different techniques to get the child to comply with the task, yet she elicited little response from the child and seemed unable to change her approach. The mother had a didactic style of

interacting. While Barbara displayed signs of insensitivity, she also displayed signs of sensitivity. However, when taken as a whole the interaction was not clearly sensitive.

These two clinical vignettes demonstrate the differences between maternal behaviors in interactions with their infants in a mother with loss versus a mother with no loss, regardless of attachment classification. Digna lost her mother at the age of 15. She was clearly loving, sensitive, and emotionally available to her son. Despite the early loss of an attachment figure, she was able to remain respectful of her son's individuality without becoming punitive, hostile, overstructuring, or intrusive. In contrast, Barbara, whose mother is still alive, was less emotionally available to her daughter. She was unable to provide appropriate structuring and at times, seemed impatient and irritable interacting with her daughter.

Another finding of this study was that mothers with Dismissing AAIs were more hostile than mothers with Secure AAIs when interacting with their infants. The following clinical case vignette of a Dismissing mother illuminates this point.

Amaryllis

During the AAI interview, Amaryllis stated that she was born in another country and immigrated to the USA at the age of 12. She was separated from her father when he immigrated to the USA when she was six. At the age of 11, she was then separated from her mother when she came to USA. Amaryllis

remained in the care of her maternal grandparents. In regard to her childhood, she initially said, "*Well, what I remember is everything works good every time. I never had no problem"*, but then revealed she grew up in a household impacted by domestic violence, physical abuse and parental HIV illness.

As is found in the transcripts of individuals classified as Dismissing, Amaryllis described the childhood relationship with her mother in positive terms ("nice", "loved me", "never had any problems", and "perfect mother"), but she was unable to support the adjectives with actual events. For the most part, she did not contradict the positive portrayal but was unable to substantiate it either. Another way she attempted to keep the attachment system deactivated was by discussing her feelings *about* her mother instead of discussing the relationship *with* her mother. She claimed a "lack of memory" for childhood experiences. She demonstrated gratuitous praise for the mother in several places. For example, she said*, "Yeah, you know. We never had no problems,-- I means-, I be a good daughter, and she was being a good mother, you know? I mean, I should-, like I say the perfect mother because I been-, a lot of friends mine, that, her mother scream at her, my mother never scream at me. And um, she always take care of me and everything."*

When Amaryllis discussed her father, she described the relationship with a mixed constellation of adjectives: "bad father", "friend", "sometimes a good father", "not a perfect father", and "love." However, the positive adjectives were based on materialistic concerns. For example, when she described how her father was a friend she said, *"He-, he used to take me to school,-- and he used to*

give me a dollar, every morning." The negative adjectives were also based on materialistic concerns: *"Um, because he's not always giving me what I want."* She reported that when she was 8-years old, she was seriously injured when her father hit her with a belt. She was *"bleeding all over her body"* and was hospitalized for 2-weeks as a result.

Individuals classified as Dismissing defend against negative feelings. For example, Amaryllis was unable to articulate her feelings of hurt and possible distress at the early separation from her parents:

(Interviewer: What's the first time you remember being separated from your parents?)

Amaryllis: By the time they come over here.

(Interviewer: And how did you react?)

Amaryllis: It was so hard to understand, but,-- my mother telling us it was only for a couples months,-- that she gonna leave them over there with the grandparents. Because we never lives together, we used to live far from us, so when my mother decide-, not even, she don't decide because she wants to, they did in immigration, that she has to come first.

Dismissing individuals also minimize or downplay the effects of childhood experiences on their adult personalities. For instance, Amaryllis claimed to be largely unaffected by her early attachment experiences, yet, as in relation to her parents, she seemed to focus on materialistic concerns:

(Interviewer: Do you think it influences or affects your approach to your own children?)

Amaryllis: No . . . {{3 secs}} Because I treat them the way my mother treats me. I didn't say I'm the perfect mother, because, you know, I didn't give them everything what they wanted because I'm-, I'm not working right now, but, I give them actually what they need. They need some clothes, I buy them clothes, they need some stickers, I buy them stickers, but not everything. My daughter she's getting me crazy. If she goes, Mommy give me a dollar, Mommy give me twenty dollars, it's like that. It's like she would like to go out everywhere . . . . . {{5 secs}} Sometimes she drive me crazy."

Amaryllis also minimized the influence of childhood events on present behaviors and emotions:

(Interviewer: In general, how do you think your overall experiences with your parents have affected your adult personality? Have influenced you now as an adult?)

Amaryllis: The only thing I been, getting a good mind, the bad thing I left them in the back.

In the first segment of the mother-child interaction, Amaryllis threatened to hit the child when she tossed a puzzle piece. From the start, Amaryllis sat in a chair while the child sat on the floor with the puzzles. Amaryllis did not help the child, nor did she make any effort to teach the child how to complete the tasks. She did not interact verbally with the child. For the most part, the mother looked disinterested and disengaged. The child again tossed a puzzle piece and Amaryllis said, "No, no" and tapped the child on the head with a pen she was holding in her hand.

During the second segment of the interaction, the mother continued to sit in her chair and the child remained on the floor. There was complete silence for about 45 seconds. The child started to make sounds but Amaryllis did not respond. Eventually the child moved away from the mother and sat with her back to Amaryllis.

During the toy play segment, the child played with the toys while she continued to sit with her back to her mother. Amaryllis's body language implied that she was not interested in playing with her daughter. She sat in her chair with her arms crossed in front of her, soon she started playing with her hair, and looking at her arms and nails. All the while the child was silently playing on the floor with the toys. The child did not look at the mother. At one point, Amaryllis looked at her watch and then put her head in her hand.

During the clean-up segment, the child started to put the toys away with no prompting from the mother. For the first time, Amaryllis got out of her chair and moved toward the child to help with the toys. Oddly, the child took a step back. Amaryllis continued to put the toys away and the child moved toward a small table in the far corner of the room. The child struggled with moving the chair away from the table and struggled to sit at the table. Amaryllis made no effort to help the child, nor did she even look at the child.

During the segment of playing without toys, Amaryllis sat at the small table with the child. They started banging on the table with their hands and made animals sounds. For the first time, the child laughed with her mother. Overall, however, Amaryllis seemed bored, disinterested, and disengaged for most of the

interaction. She demonstrated no creativity in helping her daughter complete the puzzles and she made no effort to help her daughter.

In this study, mothers classified into the Dismissing category were found to be hostile in interactions with their infants compared to mothers with Secure classifications. Amaryllis is an example of such a mother. During the AAI, she was unable to substantiate the positive portrayal of the mother she was trying to present to the interviewer. She also downplayed the negative effects of her childhood on her adult personality. She defended against negative emotions. According to the EAS, Amaryllis's silent disinterest and bored expression during the mother-child interaction are considered covert signs of hostility.

The findings of this study also suggest that mothers deemed Unresolved with an secondary classification of Secure are more sensitivity, less intrusiveness, and less hostility than mothers deemed Unresolved with an underlying insecure attachment. The children of the Unresolved/Secure mother group were more involving of their mothers. It should be noted that mothers receiving Unresolved classifications did not display less emotionally available behaviors than did mothers with an organized classification; however; when Unresolved states of mind were accompanied by secondary insecure classifications there was a significant decrease in positive emotional availability indicators when interacting with their children. The following clinical example demonstrates this finding:

Evelyn

Evelyn is a 25-year-old, who is the mother of a two-year-old girl. During the AAI, Evelyn said she grew up in a household devastated by family violence, drug use, and paternal incarceration. She witnessed domestic violence "every other day" and was herself the victim of repeated physical abuse at the hands of several family members. Evelyn's mother was a substance abuser. Evelyn was removed from her care at the age of six, which lead to separation from her three siblings and two years in foster care. She was reunited with her mother but within a year her mother abandoned the family. Evelyn was left with no caregiver and no home. For a few days after her mother left, Evelyn was cared for by one of her mother's friends, in a "*junkyard, where people built their own houses*". She was finally able to call her grandmother, who took her and her siblings to an aunt's house, as the grandmother was elderly and could not care for the children herself. Evelyn described being treated extremely poorly by the aunt. For example, she says her aunt treated her like a "slave", hit her constantly, and treated the other children to McDonald's while Evelyn was forced to watch them eat. She grew up feeling inferior to the other children and kept running away from her aunt's house. At the age of 10, the aunt put her in a group home from which she also ran away. A month later her aunt put her in another group home. Finally at the age of 14, her aunt told her that the man she thought was her father was not her biological father. She ran away from her aunt's house and never returned. Her mother passed away when Evelyn was 18 years old. Evelyn is currently on medication for depression.

In describing the relationship with her parents, she said that she was more comfortable in foster care homes than in the care of her parents. This description is presented not as derogating or dismissing of the parental influence, but as a statement of her feelings toward her upbringing. Evelyn did not attempt to present the relationship with her mother in positive terms. Memories of her mother were based on impersonal situations or references to parentification, such as cleaning the house so her mother would not feel stressed or have to wake up early. She eventually said, "*I try to forget about her after all these years. Then when she, she's been dead about seven years, so - - I don't know, that's like a closed chapter in my life*". Evelyn's approach to the task of discussing the relationship with her mother may be interpreted as some one using a "dismissing" strategy. However, it should be noted that she had limited contact with her mother while growing up and her refusal to discuss certain aspects of the relationship appeared to be a volitional attempt to block out childhood memories.

In describing the father, she had a difficult time finding adjectives that represented the relationship she had with him. Finally, she says that they "*barely had a relationship like that 'cause he was like always constantly hitting me, sending me to my room or something…*" Evelyn's admission to barely having a relationship with her father is not contemptuous or derogating but rather descriptive of the relationship.

Since the paternal aunt was a caregiver for a number of years, Evelyn was

asked to provide adjectives to describe that relationship. She portrayed the aunt as a violent, aggressive person. The following instances involving the aunt qualify as evidence of physical abuse:

- *"Yah, because I was going to sch-, I I was supposedly, I was in school, the school called and said I had a fight, she came and she hit me inside the school, dragged me out took me home, and hit me again with a plunger stick. That was only four, right? She was constantly hitting me for no reason. That's why, I don't know, I don't talk to her now either. I keep my distance away from that family."*
- *"…Or if not, she was always pulling me by my hair, 'cause I had really long hair. She was constantly pulling me by my hair, dragging me.-- I don't know. That was like an every day thing. So after a while I got tired of it. . . . . {{4 seconds}} Surprised I am still here. "*
- *"I would really think that she was going to kill me just by the way she was hitting me and the things she was hitting me with" (lines 675-677)*
- *"If I didn't clean the walls right, I was getting whipped. And they'll use the first anything they could find, extension cord, plungers, broom, mop stick, whatever they can find, you was getting hit with. So. I don't know."*

- *“She’ll hit us with a belt instead of a stick or something. And it’ll be like across our legs where we would have to wear long jeans all the time, or long sleeves”.*

The Unresolved classification was evidenced by the following: 1) Evelyn’s attempted to dismiss the import of abuse events. For example, she claimed there has been no effect on her adult personality because she’s “*still alive and still breathing*”. She reported that she tried to block out her childhood but admitted to having frequent flashbacks, 2) Evelyn’s extreme behavioral reaction at the time of her mother’s death and references the mother in the present tense. She stated she started using drugs and drinking heavily because she wanted to die with mother, 3) she made some extremely confusing statements about events that happened around the time of her mother’s death. For instance, she claimed she found out she was pregnant after her mother’s death but later in the interview said she told her mother she was pregnant before she died.

It is apparent that Evelyn grew up with no loving attachment figures and no warmth or comfort at times of pain or hurt. For example, she described how, as a child, she had fallen and was bleeding from a cut on her foot; her father’s response was “*Oh get up, you’re all right*”. She seemed consciously aware of how her childhood has affected her and the descriptors of her parents were not idealizing, fragmented, oscillating, or derogating.

In the mother-child interaction, there was a haunting sadness and vulnerability about Evelyn both during active interactions with her daughter and in moments of inactivity. During the first puzzle task, Evelyn and her daughter’s

affect was bland. Mother did not engage the child in the task and completed the puzzle on her own with barely any verbal exchange with the child. However, the child attempts to get her mother's attention when the child attempted to put in a puzzle piece. During the second puzzle task, Evelyn was again providing little structure for the child but this pattern changed during the tasks that follow. The mood and tone of the interactions seemed to positively shift during the next three segments. During the toy play, the dyad seemed more animated and expressed genuine positive emotion. The child was more responsive and more engaging of the mother. Evelyn watched her daughter play and on occasion helped her with a toy. There were moments of parallel play but they were brief in duration. Evelyn played with a toy first, almost as if to figure it out and then showed the child. The little girl was responsive to the mother's bids for attention. There were not many verbal exchanges between mother and child, but they appeared aware of each other. For example, Evelyn was watching her daughter play and the child made frequent eye contact with her mother. In the segment of playing without toys, the mother and child did not play at first and it seemed Evelyn was unsure of what to do. After a few seconds, they became more animated and more affectively expressive and exchanged "I love you" and a few kisses. Overall, Evelyn gives an impression of uncertainty. There are portions of the interaction when Evelyn seemed emotionally accessible to the child. The child seemed hesitant to initiate new activities, which may be related to the mother's depressive qualities, but when she did take the initiative, Evelyn responded

appropriately. My impression was that Evelyn would be highly receptive to therapeutic suggestions and interventions.

Evelyn was an example of a mother with an Unresolved classification with a Secure secondary classification. During the AAI, she had some difficulties describing the relationship with her mother and her father but this seemed more a result of the nature of their relationship rather than a dismissing or detached defense against the negative effects of her childhood. Her narrative when discussing her mother's death was confusing and hard to follow. Likewise, the behavioral reaction at the time of her mother's death was extreme. During the first two segments of the mother-child interaction, Evelyn seemed to be affectively detached from her daughter. She was unable to provide appropriate structuring and scaffolding. However in the last three segments, she seemed more emotionally connected and was able to interact positively with her daughter. While Evelyn's behavior was not indicative of optimal parenting, there were enough positive indicators to warrant an EAS score in the middle range of emotional availability.

Limitations of the Measures

The data from this study only partially confirmed the hypotheses that adult representations of attachment predict the observed quality of dyadic interaction between mother and child. In fact, the absence of differences was more a function of whether the PWA was deceased rather than the mother's attachment classification. The differences in scores may be reflective of the limitations of the

EAS. The main limitation of the instrument is the lack of acknowledgment and appreciation of multicultural perspectives. This is the first study using the EAS with an ethnically diverse population. The impression was that, for the most part, cultural variations in parenting made coding of the mother-child interaction using the EAS difficult. For example, Latino and African-American mothers typically have a more authoritarian style of parenting. Yet, the EAS did not take this into consideration. The EAS coding system suggests that more directive styles of parenting are less optimal and lead to less emotionally available behaviors within the dyad. The EAS was developed and standardized on a white, middle-class population. In contrast, this study represents a sample in which 84% of the participants belong to an underrepresented minority group and almost 11% identified as biracial. The majority of the participants were Latinos (88.9% were Puerto Rican, 7.4% were Dominican, and 3.7% identified as “Other).

It is possible that the EAS is not sensitive enough to accommodate cultural difference in parenting styles. For instance, in Western culture a strong sense of autonomy and the development of independence are held as the optimal standard for which all subcultural groups should strive. Any deviation from this behavior is viewed as pathological and potentially harmful to the development of the child’s sense of self and sense-of-self-in-relation-to-the-other. Inherent in the EAS is the belief that the parental behaviors that foster and encourage individuality and support for a strong sense of autonomy are most favorable for a healthy parent-child relationship. However, autonomy as defined by white American culture is not evident in the same form in the Latino culture.

Generally speaking, Latinos believe in a collectivist family structure, where the well being, protection, and maintenance of the integrity of the family supercedes the individual needs of each family member. Latino children are taught to obey and respect their parents, elders, and extended family members. Puerto Rican families do not necessarily encourage their children to develop ideas that differ from the overall family culture and value system. Likewise, in the Puerto Rican culture, parents are hesitant to reward good behavior because they are afraid their children will lose their sense of respect. Parental behavior guided by this cultural belief system may appear harsh and abrasive when talking to their children when compared to Caucasian parents. This is not to say that Caucasian children may not be adversely affected by an overemphasis on autonomy or that Latino children may not affected by little emphasis on autonomy, but that these situations do not necessarily lead to psychopathology or emotional difficulties. The issue of affect expression and affect regulation may also be culturally determined. In the Latino culture, affects can be externally regulated through pressure from the family and the community. In essence, affect regulation is a community task rather than an individual activity. Parental behavior that develops within a cultural context that emphasizes collectivism rather than autonomy and individualism may be viewed as overstructuring, intrusive, or overinvolving when using the criteria of the EAS. Therefore, in order to understand cultural differences, and to improve and solidify emotional availability theory within a diverse cultural framework, studies must include more ethnically diverse participants. In this way, parental behavior that does not follow

mainstream parenting practices but rather is influenced by cultural factors is not viewed as pathological and damaging.

In addition, the results of this study may also be reflective of limitations in the Adult Attachment Interview. Accuracy of the AAI to classify adult attachment is not denied when applied to middle-class, low-risk Caucasian American populations, but non-Caucasian subcultures may engage in cultural practices and maintain culturally derived value systems that are different from mainstream Western standards. For this reason, the application of the AAI to subcultures within American culture may yield results that have less to do with issues of insecurity of attachment and more to do with cultural differences. The application of adult attachment has been extensively examined cross-culturally. However, the accuracy of the AAI when used with subcultures within the USA has not been appropriately tested and established. Several researchers claim racially diverse in their samples, but in actuality the studies include a limited number of culturally diverse subjects. For example, Roisman, Padron, Sroufe, and Egeland claim diversity but their sample only represented 17% bicultural, 10% African American, and 1.8% Native American or Latino. Siri-oyen, Landy, and Hilburn-Cobb (2000) also claim racial diversity but their sample represented 73% Caucasian, while only 4 subjects were from the West Indies, 2 subjects were from South America, 1 subject was from South East Asia, and 1 subject from North European. Lyons-Ruth, Yellin, Melnick, and Atwood (2003) report on a sample comprised of 80% Caucasian and 20% Latino, African American, or biracial. Claims for universality of attachment theory have been in existence

since the beginning and prior research has proven that, for the most part, attachment behaviors are universal. For instance, Ainsworth based her theories of attachment on two samples, a Baltimore sample and a Ugandan sample. Bowlby (1969) asserts that the caregiver-child relationship is vital to the vulnerable offspring's survival and therefore the attachment system is part of the biological make-up of all humans. Culture, however, plays a part in how these biological components manifest into behaviors. Therefore, the study of adult attachment classifications within different cultures of individuals living in the USA is important to help adapt, change, and widen the scope of the theory to include cultural factors that influence attachment.

Main's conceptualization of adult internal working models of attachment by use of the AAI has been instrumental to the expansion of attachment theory. The application of the AAI allows one to derive information about adult states of mind in regard to childhood attachment-related information and its implications for the quality of mother-child relationships. However, the use of the interview with a sample impacted by chronic and pervasive attachment-related trauma bought to light the limitations of the AAI. The AAI was designed to question and examine discourse relevant to incidence of physical/sexual abuse and loss by death. Unfortunately, this excludes other attachment-related traumatic experiences as a possible pathway toward unresolved and disorganized states of mind. The essence of Bowlby's conceptualization of attachment developed out of his work with juvenile delinquents who had suffered extended separation from and abandonment or rejection by, parents or caregivers. Yet the AAI does not

address these issues as possible causes of an Unresolved classification. It could be that loss through death and abuse are only two of the possible pathways towards disorganization and disorientation. The mothers in this sample experienced environmental and familial stressors that were probably as devastating, as deleterious, and as traumatizing as experiences of loss and physical/sexual abuse. Herman (1992) postulates that repeated trauma in early childhood "forms and deforms the personality" (p. 96). The feelings and ideas associated with the trauma become integrated into the person's sense of self. Van der kolk (1995) also postulates that chronic and pervasive trauma affects the personality of an individual. The trauma becomes incorporated into their character. It may be that the stressors these young mothers confronted as children, and probably continue to face, lead to difficulties that became part of their daily experience. As such, they fail to view these stressors as problematic. Consequently, they may function on a depressive, disorganized, or fragmented level that reflects more a personality or character structure rather than a clinical syndrome measurable with the AAI. The impact that other attachment-related trauma may have on an individual's psychological well-being is vital to the refinement of adult attachment theory.

Limitations of the Study and Directions for Future Research

There are several noteworthy features of the research presented here. Nonetheless, certain limitations of the study should be taken into account when the results are interpreted. First, there was no control group. A control group

matched on race/ethnic culture, SES, and multiple-risk factors would have been helpful in determining the intergenerational effects of having a PWA and the cultural differences in adult attachment not yet discovered. Second, this sample, for the most part, experienced various traumatic events and abuse. However, there was no measure of the severity, chronicity, and pervasiveness of traumatic experiences. Third, from a cursory examination of AAI interviews it appears that an unusually high number of mothers experienced childhood sexual abuse. The AAI interview is designed to examine patterns of discourse for references to loss and to physical and sexual abuse, yet the interview manual discourages probing instances of sexual abuse. In this sample, many of the mothers mentioned experiences of sexual abuse but did not elaborate when queried. Therefore, there was no way of knowing how the mother resolved the issues related to sexual abuse. Lastly, there was no way of determining the number and nature of stressors experienced by these mothers as children. A childhood experiences questionnaire may have been helpful in identifying and clarifying familial risk factors not probed by the AAI.

Further study is needed to determine the relationships of attachment classifications and their influence on the mother-child relationship in maltreating and multiple-risk populations. High-risk and multiple-risk family environments need to be studied to determine the validity and refinement of the measures for use with diverse populations. Lyons-Ruth, Yellin, Melnick, and Atwood (2005) have already identified “hostile” and “helpless” adult states of mind as having a higher predictive rate to Disorganized attachment in infants than the Unresolved

classification. The current study makes clear that attachment-related traumatic events affect the nature of the mother-child relationship. It also makes clear that despite extremely harsh, abusive, and chaotic early environments, autonomous and secure states of mind in regard to attachment can develop. The study of other traumatic events may shed light on how individuals cope with and integrate experiences of attachment-related trauma, and the implication that the failure to resolve has on the parent-infant relationships. For instance, chronic illness and relational violence may in fact be as disorganizing and as difficult to resolve as the loss of an attachment figure through death. Additional study will help to refine and provide a more nuanced view of the Unresolved classification to include possible lapses in monitoring and disorganized thinking/behavior for traumas not related to loss and abuse.

Many mothers in this sample were classified as Secure (33%) and overall, the EAS scores seemed to cluster around the mid-range regardless of AAI classification. Considering the childhood experiences of these mothers, this may be quite adaptive and healthy for this population. It seems that despite the chaotic, tumultuous, and traumatizing early lives of the mothers in this sample, many presented as highly resilient, strong-willed, and determined. Even the mothers whose AAI classification was insecure seemed to embody strength of will and determination that was impressive. For example, in reviewing the transcripts of some of the Dismissing mothers it seems that the detached and dismissive attitude serves to protect the mothers against the overwhelming

effects of their childhood experiences. Further study should include an examination of the association between resilience and adult attachment.

Clinical and Theoretical Implications of the Study

Ward and Carlson (1995) used the AAI with low-income, highly stressed women of color. However, this is the first attachment and emotional availability study done with a multiple risk, ethnically diverse population. The findings of this study will have implication for theory and clinical practice with multiple risk populations that are also affected by AIDS and HIV. Chronic parental illness is devastating to the families, particularly young and adolescent children of ill individuals. In addition, most interventions, from interactive coaching to parenting skills, and parental respite programs to parental therapy, assume all parents function on similar levels and have similar capacities. In fact, this assumption may lead to a lack of interest on their part and ultimate treatment failure. While some program developers are aware of difference in caregiving behaviors, they lack sufficient information to determine how interventions should be tailored or adapted to meet the needs of all mothers and children. Having a deeper understanding of the impact the illness has on the emotional and psychological development of the families will help define and determine meaningful preventive services for these families.

A great deal of research has been conducted on adolescent mothers and child attachment relationships, but none have studied adolescents or adult children of a parent who is HIV positive or who has have full-blown AIDS or has

died of AIDS. Furthermore, none has focused on the association of parenting behavior and emotional availability in a family impacted by parental HIV and AIDS. Most studies on preschool and latency age children and parents living with AIDS focus on psychosocial and behavioral factors. Garnier and Weisner (1994) report that the lives of adolescents whose parents are living with AIDS are likely to have been stressful for many years before the onset of the illness. As the parent's health declines, adolescents experience higher levels of depression and anxiety. At the same time, other studies have shown that adolescents of parents living with AIDS do not appear any more depressed or anxious than non-clinical samples of adolescents (Rotheram-Borus, Lightfoot, & Shen, 1999). In essence, much is yet to be learned about this disease and the impact it has on communities, families, children, and future generations. As found in this study, when adolescents and young women start their own families, the next-generation mother-child relationship was impacted by their early childhood experiences. The transition to parenting can be a stressful time for all parents regardless of age and background. A young mother who has not achieved a mature sense of identity because of relational-related trauma and extreme childhood events may experience even more psychological stress. The results can be profoundly negative for this mother and her child. Continued study of this population will help to develop services that emphasize their strengths but also prevent the cycle of dysfunctional parenting.

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