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**The transmission of attachment patterns across three
generations in families of adolescent mothers: An attachment
and object relations perspective**

Levine, Lauren Victoria, Ph.D.

City University of New York, 1990

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**THE TRANSMISSION OF ATTACHMENT PATTERNS ACROSS THREE
GENERATIONS IN FAMILIES OF ADOLESCENT MOTHERS:
AN ATTACHMENT AND OBJECT RELATIONS PERSPECTIVE**

by

LAUREN V. LEVINE

**A dissertation submitted to the Graduate Faculty in
Psychology in partial fulfillment of the requirements
for the degree of Doctor of Philosophy,
The City University of New York.**

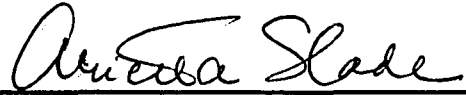
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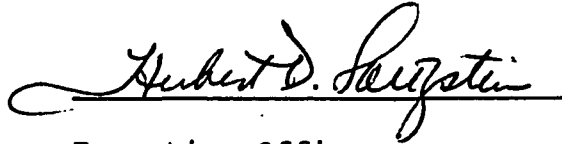
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CHAPTER I

INTRODUCTION: AIMS OF THE STUDY

Every year more than 1.1 million adolescents in the United States become pregnant. That number represents almost one in ten adolescents and is the highest rate of teenage pregnancy among all developed countries (Jaffee and Dryfoos, 1980). The vast majority of these adolescents choose to keep their babies. Much research has focused on the negative consequences of adolescent pregnancy and parenthood for both mother and child. Adolescent mothers have been identified as a population at-risk, and outcomes for these mothers and their children are related to a complex interplay of psychological, social, and economic factors (Furstenberg, 1976; Hamburg, 1986; Phipps-Yonas, 1980; Sugar, 1979).

It is widely believed that the relationship between an adolescent mother and her own mother is of critical importance in determining the outcome for the teenager and her child (Field et al., 1986; Fox and Inazu, 1980; Russell, 1980). The focus of this study is not on the present relationship between the adolescent and her mother. Rather,

the present study seeks to explore the adolescent's psychological resolution of this relationship, the representational model that the adolescent has developed through early interactions with her mother that will serve as the template for future attachment relationships.

Bowlby (1973) suggests that mental models of self and parents developed during childhood play a major role in the intergenerational transmission of attachment patterns. Recent attachment research has shown strong evidence that a parent's "internal working model" of attachment shapes the way she treats her child and that the parent's model is related to the model of attachment that the child develops (Main, Kaplan, and Cassidy, 1985). The present study extends this research a step further as it addresses the transmission of attachment patterns across three generations in families of adolescent mothers.

The primary aim of this study is to examine how internal working models influence security of attachment in grandmothers, mothers, and infants. It is hypothesized that grandmothers' internal working models will be related to their adolescent daughters' internal working models, and that, in turn, the adolescents' working models will be related to the quality of their infants' security of

attachment to them.

However, adolescent mothers must be considered in terms of the developmental issues of adolescence. One of the central tasks of middle and late adolescence is for the teenager to differentiate herself from her parents in order to establish a more autonomous sense of self. While the experience of becoming a mother represents a major developmental transition for all women, for adolescent mothers the developmental challenge of parenthood is superimposed on the normative tasks and stresses of adolescence. Pregnancy during adolescence thus compounds the stresses of two normative developmental stages and endangers the successful resolution of either one (GAP, 1986).

Object relations research suggests that the assessment of object representational models "provides important information about the developmental level and quality of interpersonal relationships to which an individual is predisposed" (Blatt and Lerner, 1983, p. 195). It is believed that an assessment of an adolescent mother's level of object relations will complement assessments of her internal working model of attachment and provide valuable insight into her ability to form a secure relationship with her infant.

In this study, I will examine the proposition that the adolescent's level of object representation will be related to her internal working model of attachment and the quality of her infant's attachment to her. Adolescents who have a greater capacity to experience self and other as separate, as whole, as continuous, and as existing in their own right, should be less likely to overidentify with their child, more likely to differentiate their child's needs from their own, and thus, more able to care for their child sensitively and appropriately.

This study builds on previous research that I have done on the determinants of mother-infant interaction in adolescent mothers (Levine, Garcia Coll, and Oh, 1985). We compared the mother-infant interactions of adolescent and non-adolescent mothers and examined the effects of maternal age, ego development, education, and social support on these interactions. The aim was to identify a group of young mothers at risk, while determining factors that enable some adolescents to cope with the stress of motherhood and to provide more optimal caregiving to their infants. Although lower ego development, less education, and little social support are often associated with adolescent motherhood, we found that there were important individual differences in

these areas within the group of teenage mothers. Adolescents with a higher level of ego development, more education, and more social support were more sensitive and responsive in interactions with their infants.

In that study, we could only make inferences about the mechanisms through which ego development, social support, and education affect mother-infant interaction. The present research focuses on the process through which attachment patterns are transmitted from one generation to the next. This research is grounded in attachment and object relations theories, both of which posit that representational models of self and other are critical in the intergenerational transmission of attachment. Thus, it is believed that the internal working model that a parent develops from her relationship with her own parents will affect the attachment relationship she will develop with her own child.

CHAPTER II
REVIEW OF THE LITERATURE

Many of the negative consequences for adolescent mothers and their children result not from the mother's age, per se, but from factors such as educational and economic disadvantages, which are often associated with early childbearing (Baldwin and Cain, 1980). For example, pregnancy is the most frequent physical condition leading a teenager to leave school. More than twice as many adolescent girls leave school because of pregnancy than for all other medical and physical conditions combined (Bolton, 1980). Furstenberg (1981) found that compared to their classmates who postponed childbearing, teenagers who had had children finished two fewer years of school five years after the child's birth. Adolescent mothers show lower participation in the work force, have lower personal and family earnings, larger families, and greater welfare dependency than women who bear children at older ages (Moore and Wertheimer, 1984).

Many researchers and clinicians who have worked with adolescent mothers and their children have focused on the impact of pregnancy and childrearing on adolescent

development. Sugar (1979) suggests that the adolescent mother often has been thrust into the mothering role with little preparation, thought, or plan at a time when she herself is in need of a mother. Developmental failures in parents place their children at biological, psychological, and social risk.

Adolescent Mother-Infant Interaction

The parental relationship mediates the effects of the infant's biology and temperament as well as the family and the larger society. While the impact of the extended family and the community should not be minimized, during infancy parents play the most vital role in their child's environment. In families at-risk, parents "are the mediators of the effects of poverty, potentially harmful community values, social isolation, psychosocial pathology, and difficult or dysfunctional relationships within the family and other social networks. Risk factors impinge upon the parent who then transforms and transmits them to the young child or protects the young child through her caregiving" (Musick, Bernstein, Percansky, and Stott, 1987, p. 2-3). In his discussion of psychosocial resilience and protective

mechanisms, Rutter (1987) states that secure, harmonious, parent-child relationships provide a degree of protection against later risk environments.

The research comparing adolescent and older mothers has been inconclusive. Some suggests that adolescent mothers differ from older mothers in their interactions with their infants, while other work has not found differences. One study found that adolescent mothers express less desirable childbearing attitudes, have less realistic developmental expectations for infants, and less optimal evaluations of their temperaments than do older mothers (Field, Widmayer, Stringer, and Ignatoff, 1980). Ragozin, Basham, Crnic, Greenberg, and Robinson (1982) found that teenage mothers reported fewer caregiving responsibilities, more social time away from baby, and less satisfaction with parenting. Osofsky and Osofsky (1970) reported that adolescent mothers appeared to exhibit a relatively large amount of warmth and physical interaction, but relatively little verbal interaction with their infants. While some research has suggested that adolescent mothers are at a greater risk of abusing their children (Kinard and Klerman, 1980; Bolton, Laner, and Kane, 1980), a recent review of these studies concludes that the proposed risk of child abuse among

teenage parents is neither adequately demonstrated nor explained in the literature (Gelles, 1986).

Several studies have found no significant associations between maternal age and mother-infant interaction. Svedja, Campos, and Emde (1980) videotaped thirty mother-infant pairs (mothers ages 17 to 30) thirty-six hours after delivery. They found that maternal behavior in the postpartum period did not differ as a function of age. Despite the adolescent mothers' less realistic developmental expectations and less optimal child-rearing attitudes, Field et al. (1980) did not find significant behavior differences between teenagers and older mothers in videotaped mother-infant interactions at four and eight months.

Perhaps the findings of Levine et al. (1985) can shed some light on these contradictory findings. We found that maternal behavior was not significantly different for adolescent and non-adolescent mothers in a face-to-face interaction. But, in a teaching situation, when mothers were asked to teach their infants two advanced tasks, maternal age was a strong predictor of mother-infant interaction. It may be that teenagers do not feel they can have an impact on their infant's development and thus do not encourage this growth, since adolescents are in the process of negotiating

their own autonomy and sense of effectance in the world.

Thus, while research shows that adolescent mothers and infants are at risk for difficulties in their relationship, it is not clear whether maternal age, per se, is an invariable predictor of these difficulties. It has been suggested that factors associated with developmental maturity, such as ego development, are better predictors of later outcome for mother and child (Hamburg, 1986; Levine et al., 1985; Wise and Grossman, 1980).

Children of Adolescent Mothers

Many studies have found the children of adolescent mothers to be at greater risk for biomedical problems, as well as deficits in cognitive and socioemotional development. However, the research findings on medical complications and socioemotional development are quite mixed.

A number of early studies on teenage pregnancy and childbearing indicated that adolescents and their infants had an exceptionally high incidence of medical complications (Clark, 1971; Coates, 1970). While there are some recent data consistent with this picture, most recent research

shows that the medical risks for adolescents and their infants are confounded by the inadequate prenatal care that adolescents often receive. Adolescents are also less likely than older pregnant women to take advantage of available medical services (Phipps-Yonas, 1980). However, given adequate prenatal care, there is little evidence that teenagers (over 14) and their babies are at an increased risk of biomedical problems (Baldwin and Cain, 1980; McAnarney, Lawrence, and Aten, 1978; Phipps-Yonas, 1980). Girls who are younger than fifteen tend, as a group, to have more difficulties that are probably due to physiological and anatomical immaturity (Phipps-Yonas, 1980).

The research on differences in infant cognitive development, however, does show consistent deficits for children of teenage mothers. Maracek (1979) found that children of adolescent mothers scored slightly lower on cognitive tests at eight months, four years, and seven years. Studies of children of different races, social classes, and ages, have found positive relationships between maternal age and children's intellectual development (Belmont, Cohen, Dryfoos, Stein, and Zayac, 1981; Zybert, Stein, and Belmont, 1978). Furstenberg and Crawford (1980) assert that most of the observed differences in cognitive

ability are the results of background disadvantages, especially higher rates of family instability in families of adolescent mothers. Baldwin and Cain (1980) stress that although children of adolescents consistently score lower on cognitive tests, the effect, though significant, is small and may be trivial in terms of later achievements.

The association between a mother's age and her child's socioemotional development is less clear than that between maternal age and the child's cognitive development. One of the earliest reports by Osofsky and Osofsky (1970) indicated that infants of adolescent mothers were low in responsiveness and affective expression. Oppel and Royston (1971) found that, in their sample, the children of mothers under eighteen showed more behavioral problems than controls, and were more distractible and dependent at age ten. Maracek (1979) found that mother's age had little effect on the child's socioemotional behavior at age four, but by age seven, children born to mothers under eighteen showed more hyperactivity, hostility, resistiveness, and lack of impulse control.

However, other studies have found no association between maternal age and the child's socioemotional behavior (Dryfoos and Belmont, 1979; Furstenberg, 1976). Baldwin and

Cain (1980) asserted that the effect of a child's social and emotional development "does not result from the mother's age at birth directly, but rather is transmitted through other factors associated with early childbearing, such as educational and economic disadvantage and greater likelihood of marital break-up" (p.37). As previously discussed in relation to the outcome of mother-infant interaction, the age of the mother as an isolated factor does not appear to be an invariable predictor of socioemotional difficulties. Rather, other correlates of psychosocial maturity seem to be more accurate measures predicting developmental outcome for the child (Hamburg, 1976).

Adolescent Mothers and Family Relationships

Many of the potential problems of the teenage mother are decreased when she has a sound relationship with her mother and many problems are aggravated when that relationship is weak or conflictual (Gallas, 1980). However, reports on grandparents who are prominent in the lives of teenage parents vary. While some suggest that grandparents may compensate for the sometimes inadequate parenting by the teenage mother (Field et al., 1980), others assert that

there is often competition between the adolescent and her mother over caregiving for the baby (Badger, 1979; Levenson, Atkinson, Hale, and Hollier, 1978).

Russell (1980) suggests that the decision-making necessitated by an "unscheduled" pregnancy may provide the adolescent with an opportunity to experience a new, more facilitative level of connectedness to significant others, a level that respects her increasingly adult status and responsibilities, but one that also recognizes her need for support. Smith (1975) claims that as the teenage pregnancy progresses and the two mothers talk of their own pregnancies, both mother and daughter speak of their relationship as becoming more like one between two adults than between mother and child. While the generational lines are clear in that the prospective grandmother becomes a source of wisdom, there can also be an increase in closeness generated by the sharing of maternal experiences.

Clearly, this description is one of the more positive outcomes for the relationship between an adolescent mother and her mother. Often, mothers of adolescents are angry and saddened by their daughters' pregnancies and the pregnancy serves to disrupt their relationship. Stierlin (1974) notes that rejecting or neglectful parents may push adolescents

into premature separations and a crisis runaway situation. Thus, the adolescent's pregnancy may turn an acute crisis into one of chronic duration.

Schaffer and Pine (1972), in their study of pregnant teenagers, found that the most salient conflict for these young women was between "being mothered" (arousal of passive longings to remain a child and be cared for by her mother) and "being a mother" (with a sense of mastery, new identifications, and renewal of self). The solution depended primarily on the adolescent's degree of developmental achievement in relation to her mother.

A Sociocultural Perspective

While serious developmental risks and social problems accompany adolescent parenthood, little is known about the resources, positive motivations, and strengths in some teenage mothers. Recent research from an anthropological and sociological perspective suggests that adolescent parenthood should be seen from a sociocultural perspective (Field et al., 1986; GAP, 1986; Konner and Shostak, 1986). Lancaster and Hamburg (1986) suggest that "research into coping competence, good outcomes, and successful negotiation of

adolescent parenthood across all ethnic groups is a promising and neglected line of enquiry" (p.7).

Buchholz and Gol (1986) suggest that, in some lower socioeconomic subcultures, childbearing has been viewed as a sign of maturity and early pregnancy as one of the few alternatives for the expression of adult roles available to young women. Gabriel and McAnarney (1983) compared the parenthood values of white middle-class women and black low-income adolescents. They found that teenage pregnancy was seen as detrimental and threatening to the goals of achieving adult status in middle-class white subculture. Middle class women felt that other educational and professional goals should be achieved prior to parenthood, as these goals would enable them to assume economic and other responsibilities of parenthood. By contrast, the low-income black adolescents saw motherhood as a pathway to womanhood and they perceived adult roles other than motherhood as relatively inaccessible.

I believe it is important to consider the psychological and social risks of adolescent parenthood in the context of a sociocultural perspective, since adolescent parenthood occurs at different rates and is perceived differently across subcultures. Adolescent mothers are not a homogeneous

group and the outcomes for their families vary greatly. It is critical to ascertain how some adolescents are able to establish secure attachments with their infants, given the risks associated with teenage parenthood.

While much research on adolescent mothers has focused on group differences between adolescents and older mothers or between adolescent mothers and peers who postpone childbearing, this research tends to obscure important individual differences among adolescent mothers and does not address the strengths and coping capacities of many teenage mothers (Ward, Carlson, Plunket, and Kessler, 1988). In contrast, the present research focuses on individual differences within families of adolescent mothers in order to better understand the range of variation within this population.

ATTACHMENT

The pioneering work of John Bowlby in attachment theory (1958, 1969, 1973, 1980) is based on an ethological-evolutionary model, informed by psychoanalytic object relations theory. Bowlby's work has had broad implications

for theory and research in attachment. Recently, attachment research has been extended from a focus on infant attachment and its correlates in later childhood development to the realm of adult's representational models of attachment. What this move "to the level of representation" has allowed is a way to assess the intergenerational transmission of attachment patterns, the primary focus of the present study.

Infant-Caregiver Attachment

Bowlby's central proposition was that infants are born with a biological and primary need for attachment relationships. He asserted that infants, who need the care and protection of their caregivers, must be equipped with a behavioral system to promote sufficient proximity to the caregiver--usually the mother. This behavioral system, called "attachment behavior" is complemented by a corresponding behavioral system in the adult, "maternal behavior," that functions to care for and protect the child. Attachment behavior in a young child (crying, reaching, calling, or more active attempts for proximity to the caregiver) tends to be activated under stressful conditions--the caregiver's departure or returning after an absence,

rebuff by or lack of responsiveness of the caregiver, and alarming situations of all kinds, including unfamiliar events and strangers.

Bowlby described how the infant who receives responsive and predictable care develops confidence in his caregiver's accessibility. The child's expectations regarding the caregiver's responsiveness and reliability are, according to Bowlby, incorporated into a mental model of this attachment relationship. As this representational model of his attachment figure becomes consolidated, the child gradually becomes able to sustain his relationship with her over longer periods of absence without much distress. An internal model of the attachment figure as reliable and accessible is presumed to help the child deal with real life separations.

Because internal working models are developed within a dyadic relationship, they represent more than the separate individuals. Complementary models of self and the attachment figure represent the dyadic relationship, so that if an attachment figure frequently rejects the child's pleas for comfort in stressful situations, the child may come to see himself as not worthy of help and comfort. Conversely, if the attachment figure reliably gives comfort when needed, the child will tend to develop a model of herself as a

person worthy of such support. According to Bowlby (1973), the simultaneous development of complementary models facilitates the development of healthy self-reliance and autonomy as opposed to excessive dependence.

Mary Ainsworth has made major contributions to the field of attachment theory, expanding on and revising Bowlby's original work, and perhaps most importantly, creating a standardized method of studying infant-caregiver attachment called the Strange Situation. In her influential Baltimore study (Ainsworth, Blehar, Waters, and Wall, 1978), she found significant correlations between maternal sensitivity to the infant's signals during feeding, face-to-face play, physical contact, and distress episodes in the first three months and secure infant-mother attachment at the end of the first year.

The Strange Situation, a laboratory procedure, consists of a standardized series of eight episodes with the baby, mother, and an unfamiliar adult, called the "stranger." Infants are videotaped in a playroom, where they are given the opportunity to explore toys and to interact with the unfamiliar adult in the presence and in the absence of the mother. What is of primary interest is the infant's behavior during reunion with the mother after the stressful period

when she leaves the room for a few minutes. Based on the infant's reunion behavior, Ainsworth developed four main classification patterns of infant-caregiver attachment: securely attached, anxious-avoidant, anxious-resistant, and anxious-disorganized.

The infants classified as securely attached approach the mother and seek physical contact with her if they have been overtly distressed by her absence or they greet her and seek interaction if they are not greatly distressed by the separation. In addition, secure infants use their mothers as a secure base from which to explore the environment before and after separation.

The anxious-avoidant infants snub or avoid interaction with the mother on her return. They show "hyperactive" exploratory behavior, to avoid the conflict and anxiety that direct contact with mother would engender (Kobak and Shaver, 1987). If picked up, they show little or no tendency to cling or to resist being released.

The third group, anxious-resistant infants either show angry, petulant behavior alternately with clingy, attachment behavior, or else they are conspicuously passive, alternating between clinging and resisting. They show little exploratory behavior, and many cry even pre-separation. In

general, they are relatively ineffective at eliciting comfort from mother.

Infants classified as anxious-disorganized do not appear to resemble one another in Strange Situation behavior in coherent, organized ways. Rather, they show a diverse set of behavior patterns which "lack a readily observable and coherent goal, intention, or explanation" (Main and Solomon, 1986, p.3). The behavior of these infants includes one or more of the following features: violating of temporal expectancies (e.g. strong avoidance of the parent directly following strong proximity-seeking); simultaneous display of contradictory behavior patterns (e.g., approaching parent with head averted); undirected movements and expressions, including stereotypies (e.g., rocking violently on hands and knees); and signs of disorientation (e.g., freezing of movement for several seconds with a dazed expression). These behaviors are seen as inexplicable, unpredictable, conflicted, or irrational in the context of the Strange Situation (Main and Solomon, 1986).

Children judged securely attached are able to rely on their caregiver as a secure base for exploration, and they are generally confident of the sensitivity and responsiveness of the caregiver. Research suggests that

mothers of securely attached infants are more responsive to infant crying (Ainsworth et al., 1978), more supportive of two year olds' exploration (Matas, Arend, and Sroufe, 1978), and gentler (Londerville and Main, 1981), than mothers of insecure infants.

In one study, one year olds' avoidance of the mother in the reunion episodes was predictable not only from maternal insensitivity to infant signals during the infant's first three months, but also from the mother's stated dislike of physical contact with the infant during the first three months (Ainsworth et al., 1978), an attitude that remained stable over the first year (Main and Weston, 1982). In the same study, the anxious-resistant pattern was not related to maternal rejection of the infant's bids for physical contact. Rather, this pattern was related to maternal inconsistency in responding to her infant throughout the first year (Main et al., 1985; Main and Stadtman, 1981).

There is some evidence that the parents of the anxious-disorganized infants differ in their own attachment histories from other parents. Researchers have found that a significant number of these parents have suffered some attachment-related trauma during childhood, such as loss of a parent or physical or sexual abuse, about which they are

still unresolved (Main and Hesse, in press).

Stability and Predictive Validity of Attachment Patterns

In three white, middle class samples, security of attachment has been found to be stable from twelve to eighteen or twelve to twenty months of age, so long as there are no major changes in life circumstances (Connell, 1976; Main and Weston, 1981; Waters, 1978).

However, there is no evidence that attachment patterns, once formed, are unalterable. Changing life circumstances and stressful events, such as major separations from parents or parental divorce, can have an impact on attachment relationships. Vaughn, Egeland, Sroufe, and Waters (1979) found a correlation between stressful events in the child's family between twelve and eighteen months and changes to a nonoptimal attachment pattern in the Strange Situation at eighteen months. Thompson, Lamb, and Estes (1982) found that life stresses may lead to beneficial or detrimental changes in the attachment relationship.

While research shows that major life stresses can alter the quality of attachment patterns, there is also much support for the predictive validity of early attachment

patterns. For the securely attached child, simply the presence of the caregiver provides sufficient security in a new situation to promote active exploration (Sroufe, 1979). Just as the quality of attachment influences the infant's exploratory competence, these early adaptations, in turn, influence the quality of autonomous functioning in the toddler period (Matas et al., 1978). Children who are securely attached, who have the capacity for affective engagement, are more persistent, enthusiastic, and effective in facing environmental challenges autonomously (Sroufe, 1979). These children gain not only object mastery skills, but also a sense of their own competence, what White (1963) called "effectance."

In the preschool period, given continued support by the caregiver, securely attached children have been found to be more confident, skilled, and positive in dealing with peers (Arend, Gove, and Sroufe 1979; Sroufe, 1979). Children classified as anxious-resistant at twelve months showed ineptness in their interactions with peers and more chronic dependency on teachers in the preschool period. Avoidant children at twelve months tended to be hostile or distant with peers, and most did not seek teachers when disappointed, injured, or stressed (Sroufe, 1982).

Security of attachment has also been related to affect regulation in social relationships. Children judged as securely attached in the Strange Situation at twelve months were found to display more smiling and affective sharing with peers (Waters, Vaughn, and Egeland, 1980) and were rated by teachers and observers in a pre-school setting as showing less negative affect, being more socially competent, and having more friends (Sroufe, 1983). In sum, not only do securely attached children show an ability to tolerate negative affect while maintaining constructive engagement with others, but they are able to display positive emotions that enhance social interaction and social competence (Sroufe et al, 1984).

Children who were anxiously attached in infancy show less optimal styles of affect regulation in the preschool years. Research shows that avoidant children may adopt a strategy of cutting off anger or distress (Kobak, 1986; Lutkenhaus, Grossmann, and Grossmann, 1985), and thereby, reducing conflict with attachment figures who are insensitive or rejecting (Cassidy and Kobak, 1986; Main 1981). Anxious-resistant children, in contrast, display heightened expressions of distress (Kobak, 1986), showing fear and anger directly toward the attachment figure.

Finally, there was recently found to be strong stability in security of attachment from infancy to six years of age (Main et al., 1985). Early security of attachment predicted the degree to which the child's internal working model of the parents was reliable and accessible at six years. It predicted the child's emotional openness about family relationships and parent-child separations, as well as the actual response of children to their parents on reunion after an hour long separation. Just as the secure infant seems at ease exploring the environment, the secure six year old seems at ease discussing feelings. The avoidant infant snubs interaction with his mother at reunion, and at six years he appears uncomfortable discussing feelings.

Attachment assessments appear to predict later functioning more powerfully than any previously used measures, including standardized infant tests (Sroufe, 1979). Sroufe argues that this predictability is not due to the inherently higher IQ of securely attached infants, or to inborn differences in temperament, although these differences probably do have important influences on behavior.

Internal Working Models and
the Intergenerational Impact of Attachment

To what extent does the quality of early attachments influence one's own parenting? Bowlby (1980) asserted that there is a strong causal link between an individual's experience with her parents and her later capacity to make affectional bonds. Bowlby believed that the mother's contribution to her relationship with her infant "derives...from a long history of interpersonal relations with her family of origin" (Bowlby, 1980, p.342).

While the assumption that parental behavior experienced in childhood has a profound impact on one's own parenting has a strong theoretical tradition, empirical work on the intergenerational transmission of relationship patterns is recent and relatively sparse (Ricks, 1985). Ricks suggests that intergenerational continuity in parenting is, to a large extent, carried through an individual's expectations regarding self and attachment figures. She asserts that these often unconscious expectations are conveyed to offspring through the parent's behavior and affect, often in subtle ways.

In a recent study, Ricks and Noyes (1984) found that

mothers of secure infants were higher in self-esteem and reported more positive relationships with their parents and peers than did mothers of anxiously attached infants. In a related study, Ricks (See Ricks, 1985, Note 12) found that mothers who reported difficult childhood relationships with one or both parents almost always had children who had problems in infancy and as preschoolers. These mothers often reported that their current relationships with their mothers were distant and that their own mothers were currently unhappy.

Until recently, attachment research had focused almost exclusively on infancy and early childhood and assessments of attachment patterns have been limited to observations of overt behavior. However, the child's acquisition of language and capacity for representation creates new possibilities for assessing representational models of attachment. The pioneering work by Main and her colleagues at Berkeley on the internal representation of attachment in older children and adults has expanded the field of attachment research (Main et al., 1985). Main and her colleagues have explored how early security of attachment relates to the parent's internal representation of attachment five years later, when the child is six years old.

The parent's internal working model of attachment (to their own parents) was assessed through the Berkeley Adult Attachment Interview, (George, Kaplan, and Main, 1985) designed to probe for descriptions of early relationships with parents or caregivers, memories of specific attachment-related events, and the adult's sense of the effects of early relationships and events upon adult personality and relationships. Some of the questions focus on memories and experiences related to distress and the activation of attachment, such as memories of illness, separation, loss, or rejection by parents. By directing attention to these distressing experiences with caregivers, the interview elicits an individual's characteristic way of coping with thoughts and feelings regarding attachment (Kobak and Shaver, 1987). Based on this interview, a rating system was devised for the adult's representation of attachment with four main classifications parallel to Ainsworth's Strange Situation classifications for infants (Main and Goldwyn, in press).

The adult classifications are determined not by the actual events of an adult's childhood, but by the ways memories and feelings about these experiences are organized. As Slade (1988) notes, "the presence within an individual

history of neglect, trauma, or insensitive parenting does not necessarily lead to an insecure classification; rather, what is most significant for purposes of classification is whether these memories and experiences are organized in such a way that the individual has access to feelings about them, and insight into their effects" (p. 23).

Adults classified as autonomous, or free to evaluate attachment, value attachment relationships and regard them as influential upon personality. There is also a fundamental consistency and coherence in their interviews, in that they support their general descriptions of childhood relationships with specific memories of attachment-related events. They also fairly easily integrate positive and negative aspects of their experiences and feelings.

Adults classified as detached, or dismissing of attachment, tend to be devaluing or dismissing of attachment relationships and their impact on personality. In the interview, they may report little in terms of personal history. While they may idealize childhood attachment relationships at the semantic level, they either do not offer any memories to support their idealized descriptions or report contradictory memories of rejection by their parents.

Adults classified as enmeshed, or preoccupied with attachment, seem caught up in a dependent relationship with their parents. Their interviews seem confused and incoherent. They often confuse pronouns and report role reversal with parents from an early age. Their interviews consist of a flood of episodic memories with little or no semantic description and little perspective on attachment relationships.

Unresolved adults have experienced trauma--death of an attachment figure or physical or sexual abuse--about which they are still unresolved. Loss and trauma are naturally disorganizing experiences, and Bowlby (1980) views healthy mourning as acceptance and resolution of the loss, and reorganizing and reorienting of mental processes regarding attachment. Thus, lack of resolution of trauma is inferred in the interviews from the cognitive disorientation and disorganization and the irrationality of thought process in an individual's discussion of loss or trauma.

The results of Main et al.'s (1985) study are striking. There was significant evidence of intergenerational transmission of attachment patterns, indicated by a strong correlation between attachment classifications for mothers and fathers and their children (although the results were

stronger for mothers). Autonomous mothers most often were parents of children judged secure as infants, detached mothers tended to be parents of avoidant children, and enmeshed mothers were usually parents of resistant children.

Kobak and Shaver (1987) suggest that the similarity between parent and child attachment patterns may be a product of the particular style of emotional communication that the adult adopts. For example, an autonomous parent who is able to acknowledge and organize memories of attachments in her discourse in the interview is also likely to respond to her child's attachment signals in a sensitive, responsive manner. On the contrary, a parent who is dismissing of attachment in the interview may find it difficult to respond to attachment feeling and behavior in a child. The child of such a parent then learns that to "maintain felt security with such a parent, he or she must also adopt a strategy for modulating attachment feeling and behavior that is similar to the parent's" (p.38).

Recently, Kobak and Sceery (1988) examined the coherence of attachment organization during late adolescence. The primary goal of their study was to examine emotional and representational correlates of attachment in older adolescents. Their study provides evidence for the

usefulness of the Adult Attachment Interview as a way of assessing attachment models in late adolescence. In addition, they found that different working models of attachment were associated with differences in representations of self and others. One of the aims of the present study is to examine this link between working models and representations of self and other.

OBJECT RELATIONS

The concept of object relations originated as an inherent aspect of Freud's drive theory. However, psychoanalytic theory has undergone major shifts and extensions since the early twentieth century, from a primary emphasis on the role of drives, to a subsequent focus on the external, reality-oriented, adaptive functions of the ego (Blatt and Lerner, 1983). While Hartmann (1950) focused on the adaptive capacities of the ego and the development of the self, Jacobson (1964) extended the scope of ego psychology to the structural development of the self and its relation to objects (people). These structures were seen as

the result of the interaction between the child's biological endowment and the interpersonal world of the family and culture.

During the 1930's and 1940's, alternatives to drive theory were being proposed by the interpersonal or "culturalist" movement--Sullivan, Fromm, Thompson, Horney, and others, who believed that classical Freudian theory underemphasized the larger social and cultural context. In addition, the British object relations school--Fairbairn, Winnicott, Klein, Guntrip, Balint, and others, although varied in terms of their allegiance to Freud's drive model, all emphasized the primary importance of relational development (Greenberg and Mitchell, 1983).

Greenberg and Mitchell (1983) have delineated two major directions in the field of object relations. The first was an essentially preservative one, adapting Freud's original drive model to accommodate later clinical emphases on object relations. Like Freud, theorists in this group regard object seeking as subject to the dictates of drives. Object seeking is not perceived as a primary motivating force. The second strategy is a more radical one, replacing the drive theory model with a fundamentally different conceptual framework in which relations with others replaces drive discharge as the

primary force motivating human behavior. Greenberg and Mitchell identify Sullivan and Fairbairn's work as the clearest expression of the more radical strategy, the major systematic alternative to drive theory.

Recently, a group of feminist object relations theorists at the Stone Center in Wellesley, Massachusetts (Jordan, 1984; Kaplan and Klein, 1985; Miller, 1976; Surrey, 1983) have created a new developmental model called "self in relation" theory. They suggest that developmental and clinical theory have generally emphasized the development of separation and individuation, leaving the ongoing process of relational development relatively unexplored.

Gilligan (1985) asserts that in most developmental theories relationships play a fairly subordinate role in the process of individuation and autonomy: "There seems to be a line of development missing from current psychological accounts, a failure to describe the progression of relationships toward a maturity of interdependence...The truth of separation is recognized...but the reality of continuing connection is lost" (p.90). In many ways, this developmental model is similar to the theoretical perspectives of Fairbairn, Sullivan and Bowlby in its emphasis on relational development.

Although Bowlby's theoretical work in attachment has roots in psychoanalytic object relations theory, very little has been written discussing the links between these two theoretical models. Greenberg and Mitchell (1983) note that Bowlby's theory "operates entirely within the relational/structure model and is closely related to the theories of Sullivan and Fairbairn" (p.186).

Object Relations Theory and the Development of
Representational Models

Psychoanalytic object relations theorists posit that early caregiving relationships give rise to the formation of intrapsychic structures, representations of self and others, which in turn, shape and direct subsequent interpersonal relationships. Psychoanalytic theorists (A. Freud, 1965; Fraiberg, 1969; Jacobson, 1964; Mahler, Pine, and Bergman, 1975) assert that representations of self and others are initially vague, diffuse and variable experiences that gradually expand and develop into differentiated, stable, and relatively realistic representations of the self and others.

Sidney Blatt, whose work is based on an integration of

psychoanalytic and cognitive developmental psychology, suggests that "earlier forms of representations are based more on action sequences associated with need gratification; intermediate forms are based more on specific perceptual and functional features; and the higher forms are more symbolic and conceptual" (Blatt and Lerner, 1983, p. 195). Blatt and Lerner (1983) note that there is continual and reciprocal interaction between past and present interpersonal relationships and the development of representations. As new levels of representations develop, they provide a revised organization for subsequent relationships.

Comparison of Fairbairn and Sullivan with Attachment Theory

Recently, Bretherton (1986) compared attachment theory with two object relations theories, those of Fairbairn and Sullivan. Bretherton selected Fairbairn and Sullivan specifically because their focus on the internalization of love objects, on the effect of defensive processes on interpersonal relationships, and on the intergenerational transmission of early relationship patterns is most congruent with Bowlby's model of attachment through the lifespan.

While Sullivan and Fairbairn both believe that the infant's most basic need is interpersonal relatedness, they disagree on how the infant perceives caregiving experiences. Sullivan postulates that positive and negative experiences with caregivers are organized into separate representations, "good mother" and "bad mother." Gradually, these distinct good and bad personifications become differentiated and integrated into "whole" representations of specific caregivers. Later, the infant also creates complementary personifications of self: "good me" consists of caregiving experience that was satisfying for the infant, "bad me" organizes experience in which caregiving was associated with anxiety, and "not me" derives from experience that is so intensely anxious that it remains completely unknown and unintegrated.

Sullivan refers to the "self-system" as the mechanism that protects the person from anxiety through security operations that repress experiences of "bad me" and "not me." There is a heavy price to be paid for this repression of anxiety-provoking experience, however, since security operations "interfere with observation and analysis" (Sullivan, 1953, p.346). Thus, someone raised in a family where anxiety is relatively minimal and circumscribed will

have a broadly ranging "good me" and a fairly resilient self, and a relatively narrow area of dissociated experience. On the other hand, someone raised in a family where anxiety is pervasive will develop a less resilient self and a much larger range of dissociated experience (Greenberg and Mitchell, 1983, p.104).

Fairbairn believes that the infant initially perceives mother as whole, and that if relationships with the caregiver are unsatisfying, the infant is forced to create internal, compensatory objects which serve as substitutes for painful relationships with real objects. While the child cannot do without parents, living in a world in which parents are unavailable or inconsistent is unbearably painful. Therefore, a series of internalizations, repressions, and splits occurs, based on the necessity of preserving the illusion of the goodness of the parents as real figures in the outside world. The child then splits and internalizes the bad aspects of the parents (it is not they who are bad, it is he), since if he perceives the badness as inside him, he preserves the illusory hope of omnipotent control over it. When the child experienced the parents as "bad," he felt painfully unable to make any impact at all.

While Sullivan and Fairbairn's models are developmental

and extend across the lifespan and across generations, neither of them emphasize the specific importance of attachment relationships throughout the lifespan. Sullivan outlines a developmental sequence in which needs for different forms of relatedness predominate at different periods throughout one's life. However, relationship patterns developed early in life tend to be imposed on new relationships. In his developmental model, Fairbairn emphasizes increasingly mature patterns of relatedness, as opposed to different partners or forms of relatedness. Optimally, infantile compulsive dependence leads eventually to mature dependence, based on reciprocal interdependence, not unilateral dependence. However, early maladaptive relationship patterns can interfere with the achievement of mature dependence, since people tend to seek out "familiar" relationship patterns.

Bowlby disagrees with Sullivan's notion that good and bad experiences with caregivers are initially organized into separate representations. Rather, he takes Fairbairn's position that defensive splitting occurs later as a result of painful and anxiety provoking caregiving experiences. Bowlby differs from both Sullivan and Fairbairn, however, in his belief that the construct of internal working models can

be used to explain the development of adaptive as well as pathological relationships. He argues that the construction of internal working models is a way of representing all aspects of experience, and that this generally serves an adaptive function. Bowlby views defensive exclusion as a maladaptive aspect of normal selective attention and selective processing. Bowlby also differs from both Sullivan and Fairbairn in his emphasis on attachment relationships throughout the lifespan and intergenerationally. Attachment theory focuses specifically on relationships in which one person serves as secure base to another, not on relationships in general.

Although there are important theoretical links between attachment and object relations theories, little empirical evidence exists concerning possible associations between attachment theory's concept of internal working models and object relation theory's concept of representations of self and other. Bowlby integrates aspects of psychoanalytic object relations theory with ethological and evolutionary theories as well as cognitive psychology in an effort to make psychoanalytic theory less abstract and more scientifically objective. As part of this effort, Bowlby (1973) suggested that the psychoanalytic concept of

"internal objects" be replaced by the notion of "internal working models" of self and world, constructed by each person as a result of his experience. Such working models determine the person's expectations and enable him to construct plans of action.

Bowlby (1973) suggested that the term "good object" be reformulated "as a working model of an attachment figure who is conceived as accessible, trustworthy, and ready to help when called upon. Similarly, ...a 'bad object' can be reformulated as a working model of an attachment figure to whom are attributed such characteristics as uncertain accessibility, unwillingness to respond helpfully, or perhaps the likelihood of responding hostilely" (p.117).

While Bowlby's concepts of internal working models provide a valuable way of conceptualizing representational models of self and other, I would assert that object relations theory has much to offer attachment theory in terms of a richer formulation of the process of internalization of relationships, the complexity of mental representation, and the interplay between internal models and interpersonal relationships in an individual's life. Object relations theory also provides a developmental continuum to describe stages in the development of

representational models. One exploratory aim of the present study is to examine the relationship between models of attachment and object representations of self and other in adolescent mothers.

Assessments of Object Relations

Diagnostic assessment of object relations involves an evaluation of intrapsychic functioning, the ways in which "feelings and conscious and unconscious ideas about the self, about other people, and about the relations between self and others are organized in an individual's mind" (Urist, 1981). In the past twenty years, psychologists have studied the nature of an individual's object representations through an analysis of responses on traditional projective tests. Most of these studies have used the Rorschach to assess object relations (Blatt et al., 1976; Blatt and Lerner, 1983; Blatt and Ritzler, 1974; Blatt, Schimek, and Brenneis, 1980; Fibel, 1979; Krohn and Mayman, 1974; Lerner, 1983; Lerner and St. Peters, 1974; Mayman, 1967; Pruitt and Spilka, 1964; Spear, 1978; Spear and Sugarman, 1984). Other studies have investigated the structure and content of early memories (Mayman, 1968), manifest dreams (Brenneis, 1971;

Krohn, 1972; Krohn and Mayman, 1974), descriptions of "significant figures" (Blatt, Wein, Chevron, and Quinlan, 1979), and a newly created semi-structured projective test called the Comprehensive Object Relations Profile (Burke, Summers, Selinger, and Dolonus, 1986). Taken together, these studies show that the concept of object relations has been demonstrated to be a reliable and valid construct (Burke et al., 1986).

Two main research groups have made major contributions to the theory and assessment of object representation: Mayman and his colleagues at the University of Michigan (see above studies), who have focused on the thematic elements of object representation, and Blatt and his colleagues at Yale University (see above studies), who have concentrated mainly on the structural dimensions of object representation. Mayman et al. have assessed object representation in relation to levels of psychopathology, types of character structure, independent rating of object relations, and the capacity to benefit from psychotherapy. Blatt et al. have studied the relationship of object representation to normal development, as well as to levels and types of psychopathology. The findings of Blatt et al. also show that the structure of object representations continues to develop

into early adolescence and adulthood (Blatt et al., 1976).

Blatt and Lerner (1983) note that, according to both psychoanalytic and developmental psychology, progress in the development of representations is the result of increased levels of internalization and the product of each major developmental phase. Object representations and mental schemata become increasingly differentiated, integrated, and accurate. In a longitudinal study of normal subjects over a twenty year period from early adolescence to adulthood, Blatt et al. (1976) found consistent changes with development in the content and level of cognitive organization of object representation on the Rorschach. They found that there was a significant increase in the number of well-differentiated, highly articulated, and integrated human figures and an increase in the degree to which the figures were seen in constructive and positive interactions.

Urist (1977) has suggested that a developmental assessment of object relations involves not so much what a person thinks and feels about people, but rather, how a person experiences and organizes these ideas and feelings. It has been demonstrated that individuals "tend to experience self-other relationships in consistent, enduring, characteristic ways that can be defined along a

developmental continuum" (Urist, 1977). Urist has developed a scale called the Mutuality of Autonomy Scale, which represents a continuum corresponding to stages in the development of object relations. The scale focuses on the developmental progression toward separation-individuation, with a particular emphasis on the person's capacity to experience self and other as mutually autonomous within relationships (Urist, 1981).

While the Mutuality of Autonomy Scale was originally developed for use with adults, recent research has validated its utility in work with children and adolescents (Tuber, 1983; Ryan et al., 1985). Tuber (1983) applied the Mutuality of Autonomy Scale to the Rorschachs of six to twelve year old children who were patients at a residential treatment center to see whether measures of object relations could help predict later adjustment. The Mutuality of Autonomy Scale significantly predicted the children's adjustment at follow-up, discriminating between those children who had to be re-hospitalized from those who needed no further psychiatric services. In their study of fourth to sixth grade children in an urban elementary school, Ryan et al. (1985) found that children's object relations scores were significantly related to their self-esteem, locus of

control, and adjustment in the classroom.

The Krohn Object Representation Scale for Dreams
and the Present Study

Alan Krohn, a colleague of Mayman's at Michigan, has applied the concept of object representation to manifest dreams (Krohn and Mayman, 1974). Krohn has developed an object representation scale for dreams that measures subjects' overall level of maturity of object representation as reflected in the depiction of human figures in their written dream reports. The scale is based on a dimension of object representation most closely alligned with Kernberg's developmental concept of structural derivatives of object relations (Kernberg, 1966).

In Kernberg's model, the most primitive level of object relations is one where self and other are experienced as either highly idealized and perfect or empty and persecutory. More advanced forms of internalization lead to the recognition of the roles and functions of others and a more subtle understanding of relationships. Affects become more modulated, differentiated, and less overwhelming and a sense of self evolves that is more stably and reliably

differentiated from others. The highest form of internalization, which Kernberg calls "ego identity," refers to a consolidation of earlier identifications and introjections. Self and object images become richer, more consistent, more varied, and more congruent with an objective view of self and other.

Krohn asserts that an individual's experience of others will be only as differentiated and varied as are his or her internal representations of self and other (Hatcher and Krohn, 1980). Thus, for example, if an individual has a primitive level of object relations, viewing others as either all-giving or sadistically withholding (need-satisfying object relations), then he or she will only be capable of perceiving others in these extreme ways. On the other hand, if a person has internal representations of others which include empathy, sense of humor, motives, and contradictions, then he or she has the potential for a much more subtle and differentiated experience of self and others.

While the Krohn Scale was originally developed as a measure of object representation for dreams, it was also applied to, and found to be significantly correlated with independent measures of object relations obtained from early

memories, the Rorschach, and clinical appraisals of object representation and extent of psychopathology (Krohn and Mayman, 1974). In a later study, Hatcher and Krohn (1980) examined the association between level of object representation and ego psychological capacities necessary for making effective use of intensive, psychoanalytically oriented psychotherapy. Their aim was to test the common clinical observation that "good" object relations suggest a positive prognostic sign for psychotherapy.

In the present study, the Krohn Scale was applied to the Adult Attachment Interview in order to assess the adolescent's level of object representation. Thus, one of the aims of this study is validation of the Krohn Scale for use on the Adult Attachment Interview.

The Adult Attachment Interview and the Krohn Scale of Object Representation

It is an exploratory hypothesis of this study that attachment theory's concept of internal working model and object relations theory's concept of object representation will be related. Main et al. (1985) define an internal working model of the self in relation to attachment as a set

of "conscious and/or unconscious rules for the organization of information relevant to attachment and for obtaining or limiting access to that information, that is to information regarding attachment-related experiences, feelings, and ideations" (p. 93). Thus, the Adult Attachment Interview coding system taps processes and defensive styles regarding access to attachment-related information.

The Krohn Object Representation Scale, by contrast, is a hierarchical scale which assesses increasing levels of an individual's capacity for interpersonal relatedness. The focus of the Krohn Scale is on how a person experiences and perceives self in relation to others, rather than on the conscious and/or unconscious rules the person uses for organizing this information. The Krohn Scale captures the developmental progression of object-relatedness from the lowest level, where the subject's world seems to be completely lifeless, vacant, and alien, and either very stark and static or very fluid and formless to the highest level, where the subject seems to have a well-developed understanding of others' thoughts, feelings, and conflicts. Other peoples' behavior and personal characteristics are considered in perspective and remain open to re-interpretation. Thus, I am suggesting that the constructs of

internal working models and object representation will be related and will be correlated in this study, since both constructs capture representational models of relationships.

Adolescent Mothers and Object Relations

Fischer and Scharf (1980) describe pregnant adolescents as variously attempting to fill an inner emptiness, to force a resolution of intergenerational dependency conflicts, to find a way to leave the parental home, and to make an abortive thrust toward mastery and individuation.

Adolescents who become pregnant for such reasons have generally had early deficits in nurturing, resulting in a lack of a stable sense of being a separate and worthwhile individual.

Other studies suggest, however, that there is substantial variability among adolescent mothers in terms of their maturity and level of ego development or ego strength. In several studies, level of ego development predicted adolescent mother-infant interaction and attachment better than the age of the mother, per se (Levine et al., 1985; Wise and Grossman, 1980). Hamburg (1986) asserts that, while adolescent motherhood is associated with substantial risks,

there is a subgroup of poor, black, older adolescents "who have realistic perceptions of pregnancy and motherhood, capacity for sustained interpersonal relationships, mature and renegotiated relationships with their parents, and a realistic future orientation" (p.122). Finally, Buchholz and Gol (1986) cite Benedek's (1959) work on parenthood as a developmental phase with an opportunity for reworking of early conflicts. They claim that for some adolescent mothers, the gratification that they experience in being able to satisfy their infant's needs helps them establish self-confidence and achieve a new integration of their personality.

Psychoanalytic theorists suggest that adolescence constitutes a second separation/individuation period (Blos, 1967). However, adolescent individuation involves differentiation from the parents as well as compensatory efforts to reestablish connectedness. The Krohn Scale was chosen for the present study because of its emphasis on a balance between autonomy and mutuality, differentiation and capacity for interpersonal relatedness. Bretherton (1987) has stated that "because attachment theory is concerned with the balance of attachment and exploratory behaviors, attachment theorists have not seen attachment as a

relationship from which the infant must free himself, but rather as a relationship that permits optimal autonomy in the context of emotional support" (p.15). She further asserted that maternal respect for the child's autonomy is a crucial aspect of sensitivity to the infant's signals and needs.

The Krohn Scale measures the overall level of maturity of object representation. At the highest end of the scale, there is a sense of rapport with people and a well-developed understanding of their thoughts, feelings, and conflicts; a high degree of self and interpersonal awareness. Presumably, adolescents are still in the process of separation/individuation, and it is hypothesized that those with higher levels of object relations will be more autonomous and more able to provide sensitive caregiving to their infants.

SUMMARY OF INTRODUCTION

The primary focus of this study is the transmission of attachment patterns across three generations in families of adolescent mothers. The main hypotheses are that

grandmothers' internal working models of attachment will be related to their adolescent daughters' attachment models, and that the adolescents' models will, in turn, be related to their infants' attachment to them.

An exploratory aspect of the study involves the association between the adolescent's internal working model of attachment and her level of object relations. The construct of internal working model captures one's state of mental integration regarding attachment and one's characteristic way of coping with thoughts and feelings regarding attachment. An assessment of object relations addresses the ways in which feelings and thoughts about self and others, and the relationships between self and others are organized in an individual's mind (Urist, 1981). It is hypothesized that these constructs will be related.

Because adolescents are still in the process of separating and differentiating from their own parents, it seems likely that many are still in the process of developing a capacity to experience self and other as whole, consistent, alive, complex, and separate. Thus, it is also an exploratory hypothesis that adolescents with higher levels of object relations will be more likely to have securely attached children. It is believed that these

mothers will be less likely to overidentify with the child and more able to differentiate the child's needs from her own. These mothers, then, would be more able to attend to their child's needs appropriately and would be more likely to establish secure attachment relationships with their children.

HYPOTHESES

1) Grandmothers' attachment classification will be related to their adolescent daughters' attachment classification. Thus, grandmothers classified as autonomous will have adolescent daughters who are classified as autonomous; grandmothers classified as detached/dismissing of attachment will have daughters who are rated as detached/dismissing; grandmothers rated as enmeshed/preoccupied with attachment will have daughters who are classified as enmeshed/preoccupied; and grandmothers classified as unresolved will have daughters who are classified as unresolved.

2) Adolescent mothers' attachment classification will be

related to their infants' security of attachment. Thus, adolescents judged to be autonomous will have secure infants; adolescents judged to be detached/dismissing will have anxious-avoidant infants; adolescents judged to be enmeshed/preoccupied will have anxious-resistant infants; and adolescents judged to be unresolved will have disorganized/disoriented infants.

3) Adolescents' attachment classification will be related to their level of object relations. Specifically, adolescents judged to be autonomous will have higher levels of object representation than adolescents classified as detached/dismissing, enmeshed/preoccupied, or unresolved.

4) Adolescents' level of object relations will be related to their infants' security of attachment. Thus, adolescents with higher levels of object representation will be more likely to have securely attached infants than adolescents with lower levels of object relations.

CHAPTER III**METHODOLOGY**Subjects

As part of a larger study at New York Hospital, Cornell Medical Center, conducted by Dr. Mary Jo Ward, ninety-five pregnant adolescent girls, ages 14 to 18, were recruited through schools, health clinics, and social service agencies in New York City. The teenagers were primarily Black and Hispanic and from lower socioeconomic groups.

This 14 to 18 year old age group was selected for two reasons. Very young teenagers and their infants (younger than 14 years old) are at-risk for adverse outcomes biologically as well as socially (Lawrence and Merritt, 1983). Because this study focuses on psychological functioning and family relationships, it was believed that the addition of variance from biological risk factors was not desirable. Secondly, mothers older than 18 years appear to be significantly different in outcome than younger mothers. They are more likely to be married (NICHD, 1984), more competent in observing, interpreting, and learning from infant behavior (Epstein, 1980), and show a more "adult-like" pattern of caregiving (Lawrence, McAnarney, and Aten,

1981) than do younger mothers. Because the focus of the study is on individual differences in relationships, it was decided that it was unwise to include variance from "status" variables such as age.

The primary childhood caregivers of these adolescents (usually their biological mothers) were also recruited. While some of the adolescents presently live with their mothers and others live away from home (with boyfriends, in group homes, or in foster placements), all of the teenagers were cared for by their mothers at least until adolescence. Since the attachment interviews focus on the early attachment relationship with the caregiver, it is believed that the adolescents' present living situation is not a confounding variable. Subjects for this study are the forty-one families in which grandmothers were alive, able to be located, and willing to participate in the project.

Setting

All procedures were carried out in the Division of Child Development at New York Hospital, Cornell Medical Center. Grandmothers and adolescents were interviewed in private rooms, and relevant parts of interviews were audiotaped and transcribed. Infant Strange Situations were

videotaped in a developmental laboratory from behind a one-way mirror.

Procedure

All subjects received a full description of the study, including assurance of confidentiality, before signing informed consent forms. Adolescents were given the Adult Attachment Interview prenatally to assess the teenagers' model of self in relation to attachments. The grandmothers were given the interview when the adolescents' infant was ten to fifteen months old. All interviews were audiotaped. Ainsworth's Strange Situation was administered and videotaped when infants were 15 months old to assess the infants' attachment to their adolescent mothers. I conducted the majority of the grandmothers' interviews, and the adolescents' interviews and Strange Situations were conducted independently by other researchers.

Measures

The Adult Attachment Interview. This interview, developed by Main and her colleagues in Berkeley (See Main et al., 1985) is an hour long, semi-structured interview which consists of 18 questions and probes. The interview is designed to elicit

memories and feelings about early caregiving relationships and attachment-related experiences, and the adult's sense of the ways in which those early relationships have affected her adult personality.

Scoring the Adult Attachment Interview requires reliability training, and interview transcripts were rated and classified by researchers who were trained and blind to other measures. Transcripts were rated and classified in three steps.

First, the rater attempts to infer the individual's probable experience with each parent in childhood on three 9-point scales: The extent to which the parents appeared to be Loving, the extent to which the parents were Rejecting, and the extent to which there was Role reversal in the relationship with either parent.

Secondly, the rater assesses current state of mind with respect to attachment. The coherence and integration of the individual's specific memories with more general statements about the parent-child relationship are rated on four 9-point scales: Coherence of the interview as a whole, i.e., the extent to which the individual was able to acknowledge and integrate contradictory experiences and memories; Idealization of parent, defined as giving a very positive

view of a parent at a general level that was either contradicted or unsupported by actual memories; Persistence of inability to recall, defined as repeated failure to recall supporting memories for generalizations made about the parent-child relationship; and Anger expressed toward parent in the course of the interview, ranging from mild irritation expressed toward parent to the other extreme, where anger toward parent has become a guiding theme of the interview.

The last step is the final classification of the transcripts, which involves matching patterns of scale ratings to the four main models of attachment, Autonomous or Free to evaluate attachment, Detached or Dismissing of attachment, Enmeshed or Preoccupied with attachment and Unresolved about loss or trauma (These classifications were described in depth in the INTRODUCTION)..

Minor adaptations were made in the interview itself in order to make the interview more appropriate for inner-city adolescents (For example, adolescents were asked for "5 words" instead of "5 adjectives" to describe childhood relationships with parents). However, the slight modifications in the interview never affected the content of the questions.

Ainsworth's Strange Situation (Ainsworth et al., 1978) is the procedure used to assess (adolescent) mother-infant attachment. It is a standardized laboratory procedure consisting of eight brief episodes that activate infant attachment behavior through increasing stress. Of primary interest is the infant's response during reunion with the mother after a brief separation. Individual differences are coded for the infant's ability to gain comfort from the mother and his ability to use the mother as a secure base from which to explore. Specifically, infants are scored on four sub-categories during the two reunion episodes (episodes 5 and 8); these are proximity-seeking, contact maintenance, avoidance, and resistance. Trained coders, blind to the other measures, then classify infants into one of four groups: Securely attached, Anxious-avoidant, Anxious-resistant, and Anxious-disorganized.

The Krohn Object Representation Scale (Krohn and Mayman, 1974) represents a developmental continuum corresponding to the various stages of object relations, ranging from primary narcissism to empathic object-relatedness. The scale was originally developed for scoring object relations in written

dream reports, but the scoring from dreams was correlated with several other projective measures, including the Rorschach and the Early Memories Test. (Krohn and Mayman, 1974). In this study, the Krohn Scale was applied to the adolescents' Adult Attachment Interview, to assess the adolescent's level of object relatedness. The rater of the Krohn Scale was blind to all other relevant data.

Each of the eight points on the Krohn Scale consists of a general description of the nature of the object world, some typical characteristics to look for in the dream, and a sample dream. For the purposes of the present study, coders focused specifically on the general descriptions of the scale point, rather than the dream characteristics or the sample dream.

The eight scale points range from the least to the most object-related as follows: (1) The person's world seems to be completely lifeless, vacant, alien, and strange. He or she experiences the world as stark and static or fluid and formless. The world seems to be an unpredictable, desolate, often bizarre place that he or she rarely understands. (2) The person's world includes people, but not really alive, human, or benevolent. People are insubstantial figures, prone to seem malevolent, brutal, murderous, extremely cold,

and mechanical. There is no internal experience of real interaction among people, for others are experienced as little more than the person's own primitive impulses incarnate. (3) People are experienced as insubstantial, fluid, and more or less interchangeable, but without the malevolence of (2). The person tends to give rather flagrant contradictions in describing other people because of his or her limited capacity to form a meaningful gestalt of another person. (4) The person's experience of people is characterized by the need they can directly gratify in the person and/or the needs the person can gratify in the other. Thus, the tremendous importance of people as gratifiers leads the person to be only vaguely aware of qualities of the other that exist apart from its need-gratifying function. (5) The person's world is experienced as populated with other people who are neither fluid nor massively distorted by poorly integrated affects, but who do not have real identity. There is a sense that people are more or less interchangeable. People seem very shadowy with unclear motives, or else they are experienced in stereotyped ways. (6) The person has a richer experience of people, but he does not readily, whether for defensive or characterological reasons, try to understand the inner experience of other

people. The person is dealing with his conflicts by steering clear of others, avoiding more intense involvements. (7) The person experiences people with a good deal of sensitivity and acuity, aware of important, subtle differences among them. People seem to be central to the person's inner life, even though neurotic conflicts lead him to experience them in childish, transference-dominated ways. (8) There is a sense of rapport with people and a well-developed understanding of their thoughts, feelings, and conflicts. Others' behavior and personal characteristics are considered in perspective and remain open to reinterpretation. There is much self and interpersonal awareness, a psychological mindedness.

Application of the Krohn Scale to the
Adult Attachment Interview

A pilot study was performed in order to examine the utility of applying the Krohn Scale to the Adult Attachment Interview to assess adolescents' level of object relations. Since the Krohn Scale has been applied to dreams, to the Rorschach, and to early memories in previous studies, the purpose of this pilot study was to assess whether the Adult

Attachment Interview was as appropriate a domain for projective assessment of object relations as these other projective measures.

Out of the eighteen questions in the interview, ten were chosen as the most appropriate questions to score with the Krohn Scale, since these questions tap more general representations of parental relationships as opposed to specific childhood memories. Thus, only these ten questions were scored with the Krohn Scale.

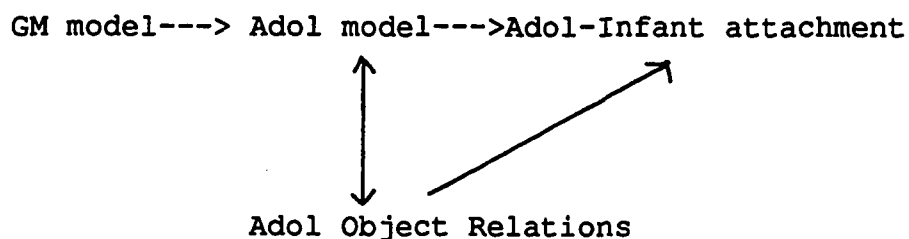
The results of the pilot study confirmed that the Krohn Scale could be applied to the Adult Attachment Interview in order to measure object representation. All interviews were codable with the Krohn scale and scale scores on the ten pilot interviews ranged from high to low ends of the scale. As in previous studies with the Krohn Scale, the single highest, single lowest, and modal object relations scores were used for analysis.

DATA ANALYSIS PLAN

Chi-square tests examined by Del PRE and t-tests were

used to test the central hypotheses of the present study. It was predicted that grandmothers' internal working model would be related to their adolescents' model, and that, in turn, the adolescents' model would be related to the quality of their infant's security of attachment to them. It was also an exploratory hypothesis of the study that adolescents' level of object relations would be related to their internal working model of attachment and would predict infant security of attachment.

The following model shows the data analysis plan:



To assess the significance of the associations between attachment classifications, 4x4 chi-square tests examined by Del PRE were used:

| | A | B | C | D | | D | F | E | U |
|---|-----|---|-----|-----|---|-----|---|-----|-----|
| D | X | | (X) | (X) | D | X | | (X) | (X) |
| F | | X | | | F | | X | | |
| E | (X) | | X | (X) | E | (X) | | X | (X) |
| U | (X) | | (X) | X | U | (X) | | (X) | X |

If, however, there were cells with few or no subjects, I collapsed the variables into a 2x2 analysis (secure vs. insecure), so that avoidant, resistant, and disorganized infants would be re-classified as insecure infants and detached, enmeshed, and unresolved adolescent mothers and grandmothers would be re-classified as nonautonomous adults. Both X and (X) would be used in a 2x2 analysis.

Thus, adolescent-infant attachment would be predicted from the adolescents' internal working model. Securely attached infants would be expected to have adolescent mothers with autonomous internal working models; whereas insecurely attached infants (avoidant, resistant, and disorganized) would be expected to have adolescent mothers with detached/dismissing, enmeshed/preoccupied, or unresolved models.

Similarly, adolescent mothers' internal working model would be predicted from grandmother's internal working model. Specifically, autonomous adolescents would have autonomous mothers (i.e., grandmothers); detached/dismissing adolescents would have mothers who are detached/dismissing; enmeshed/preoccupied adolescents would have enmeshed/preoccupied mothers, and unresolved adolescents would have mothers who are unresolved.

T-tests were used to test the association between adolescents' internal working model and level of object relations, and the association between adolescent object relations and infant attachment. Thus, adolescent mothers' internal working model would be related to their level of object relations. Autonomous adolescents would be expected to have higher levels of object relations than detached/dismissing, enmeshed/preoccupied, or unresolved adolescents. In addition, adolescent-infant attachment would be predicted from adolescent mother's object relations. Securely attached infants would be expected to have mothers with higher levels of object relations than insecurely attached infants.

Finally, correlations were run among the sub-scales of grandmother, adolescent, and infant attachment, and adolescent object relations in order to further validate the measures and assess their relationship to one another. Further, it was useful to examine the relations among sub-classifications in order to explore the discontinuities, or "misses" in the transmission of attachment patterns.

CHAPTER IV

RESULTS

The primary focus of the present study is the transmission of attachment patterns across three generations in families with adolescent mothers. It was predicted that grandmothers' model of attachment would predict the adolescent mothers' model, and in turn, the adolescents' model would predict the infants' security of attachment to them. An exploratory aspect of the study concerns the association between adolescent object relations and adolescent and infant attachment.

Demographic Data

Forty-one families, each consisting of an adolescent mother, her child, and her own mother (or primary caregiver), participated in this study. Families in this study were those in which the primary caregiver (usually the mother) was alive, able to be located, and was willing to be interviewed for the project. There were 42 adolescent mothers and infants in these 41 families. The families were primarily from lower socioeconomic and working-class groups.

Adolescent Mothers

Of the adolescent girls, 76% were Black, 12% were Hispanic, 5% were Caucasian, and 7% were of mixed ethnic background. All adolescents were single and primigravidas at the infants' birth. At the babies' births, mothers' average age was approximately 16 years (range 14-18) and their average level of education was approximately 10 years (range 8-12). The majority of these mothers reported that they had not planned the pregnancy, although all received some form of prenatal care (See Table 1). There were 19 male (45%) and 23 female (55%) infants in the study.

While many of these teenagers have experienced periods of estrangement from one or both parents, and some were raised by caregivers other than their mothers, most of the "grandmothers" in the study (88%) were the adolescents' biological mothers. 46% of the teenagers were raised by mother or grandmother alone, while 42% were raised either by mother and father or by both grandparents. The remaining 12% were brought up by other caregivers, such as aunts, adoptive, or foster parents (See Table 2).

A number of these girls had self-reported histories of physical or sexual abuse, neglect, or abandonment. Experience of self-reported physical abuse was broken down

into three categories: abuse, culturally-normative punishment, and no physical abuse or threats. Fifteen percent of the adolescents acknowledge suffering outright abuse, 29% acknowledge being subjected to culturally-normative punishment, and the majority (56%) report no experience of abuse (See Table 3). It is crucial to understand these numbers as the degree of reported physical abuse, rather than as an accurate reflection of the actual incidence of abuse. Adolescents' discussion of abuse was gleaned from the context of the attachment interview, and it is likely that the accuracy, consistency, and extent of recall of childhood experiences are related to the quality of the childhood experiences themselves (Ricks, 1985; Bowlby, 1979).

Almost one-third (29%), of the teenagers experienced a significant separation from, or neglect by an attachment figure (See Table 4) and 14% experienced the death of an attachment figure in childhood or adolescence (See Table 5).

Grandmothers

Of the grandmothers, 73% were Black, 15% were Hispanic, 5% were Caucasian and 7% were of mixed ethnic background. Their average age was 45 years (range 32-69) and average level of education was 12 years (range 8-17). Most

grandmothers were currently working (61%) and, of those, 84% were working full-time. Most families (63%) did not receive public assistance. Average combined family income was \$16,000 (range \$3,000-70,000). Thirty-two percent of the grandmothers were currently married or in a common-law marriage, although an additional 57% were married previously, and were currently separated, divorced, or widowed, and 12% never married (See Table 6).

Compared to their daughters, many more of the grandmothers (65%) were raised by both parents or both grandparents, while only a small number (15%) were raised by mother or grandmother alone, and the rest (20%) were cared for by other relatives or caregivers. This difference in caregiving between adolescents and their mothers reached statistical significance ($p < .05$) (See Table 2). Few of the grandmothers (10%) suffered physical abuse, although a large number (54%) were subjected to culturally-normative punishment, and the rest (36%) experienced no physical abuse or threats (See Table 3). The vast majority of these women (85%) experienced no major separations from their primary attachment figure after two years of age (See Table 4), although a fair number (28%) suffered the loss of an attachment figure in childhood or adolescence (See Table 5).

Importantly, not all mothers of adolescent mothers were teenage mothers themselves. In this study, while grandmothers' age at first birth varied from 15 to 39 years, their average age at first birth was 21 years, significantly later than their daughters. They had an average of 3.5 children (range 1-8), but only 30% of these women had all of their children by the same man. For most of the women (78%), the adolescent daughter participating in the study was her only teenage daughter with a baby, although a few (22%) had another adolescent with a child (See Table 6).

In the interview with grandmothers, when babies were approximately 10-15 months old, the majority of these grandmothers (88%) reported that they had been moderately to very upset by the initial news of their daughters' pregnancy. Interestingly, by the time of the interview, two-thirds of these women had come to terms with their new role and now felt positive or very positive about being a grandmother (22% felt neutral and 12% had negative feelings). At this point, almost one-third (29%) felt it was a good time in their own lives to become grandmothers, while slightly over a third (37%) felt it was not a good time, and the rest (32%) had mixed reactions (See Table 7).

Reliability

Grandmother and Adolescent Attachment (AAIs)

Reliability for the grandmother attachment interviews was adequate. For the main attachment classifications (D,F,E), kappa was 0.85, $z=3.81$, $p<.001$; while for the Unresolved (U) classification (yes/no), kappa was 1.00, $z=3.16$, $p<.001$.

Reliability for adolescent attachment was also good. Two groups of coders rated interviews for reliability. In the first group, for the main classifications (D,F,E), kappa was 1.00, $z=3.32$, $p<.001$, and for the U classification, kappa was 0.62, $z=2.22$, $p<.01$. In the second group, for the main classifications (D,F,E), kappa was 0.88, $z=4.49$, $p<.001$, and for the U classification, kappa was 0.49, $z=1.81$, $p<.10$.

Infant Attachment (Strange Situation)

Interrater reliability for infant Strange Situations was adequate. For the main classifications (A,B,C,D), kappa was 0.45, $p<.01$. Reliability was also calculated for sub-classifications. In episode 5 of the Strange Situation, for proximity-seeking, kappa was 0.56, $z=6.64$, $p<.001$; for contact maintenance, kappa was 0.59, $z=6.38$, $p<.001$; for resistance, kappa was 0.48, $z=4.25$, $p<.001$; and for

avoidance, kappa was 0.46, $z=5.75$, $p<.001$. In episode 8 of the Strange Situation, for proximity-seeking, kappa was 0.48, $z=5.72$, $p<.001$; for contact-maintenance, kappa was 0.58, $z=6.91$, $p<.001$; for resistance, kappa was 0.38, $z=4.28$, $p<.001$; and for avoidance, kappa was 0.31, $z=3.96$, $p<.001$.

Krohn Object Relations Scale

Interrater reliability was adequate for the Krohn Scale. For the single highest scores, reliability was 73% for exact agreement and 87% for agreement within one scale point ($kappa=0.62$, $z=4.40$, $p<.001$). For the single lowest scores, reliability reached 67% for exact agreement and 87% for agreement within one scale point ($kappa=0.49$, $z=3.64$, $p<.001$). Finally, for the modal scores, reliability was the same as it was for lowest scores: 67% for exact agreement and 87% for agreement within one scale point ($kappa= 0.56$, $z=3.72$, $p<.001$).

Descriptive Data

Attachment patterns among grandmothers, mothers, infants

Compared to previous attachment studies with middle class adolescents and adults, there were very low rates of

autonomous classifications among both grandmothers and adolescent mothers. Among grandmothers, only 32% were judged to be autonomous (F), 29% were detached (D), and 7% were enmeshed (E). A striking number of grandmothers (32%) were considered unresolved (U) (See Table 8). Among adolescents, the rate of autonomous functioning was even lower. Only 21% were judged autonomous, while 48% were detached, and 7% were enmeshed. Again, an unusual number of the adolescents (24%) were unresolved (See Table 9). While as yet no studies have been published on adult attachment in high-risk samples, past studies with middle-class groups have found adolescent and adult autonomous classifications ranging from 53% (Kobak, in press) to 80% (Main et al, 1985).

Among infants, the rate of secure attachment was somewhat higher, but still lower than expected. Thirty-eight percent were securely attached (B), 36% were anxious-avoidant (A), 7% were anxious-resistant (C), and 19% were disorganized (D) (See Table 10). Previous research on infant attachment in middle class groups has found secure attachment in the range of 67% (Ainsworth, 1978). Other studies with high-risk samples have found secure attachment in comparable, but slightly fewer proportions of infants (55%) (Egeland and Farber, 1984).

Interestingly, the distributions of attachment patterns of the 42 adolescents in this sample differed significantly from those of 20 adolescents in the larger sample of the project at New York Hospital ($p < .05$). In that group of teenagers, whose mothers did not participate in the study, more than twice as many girls (47%) were considered autonomous (See Table 11). This suggests that the group of adolescents whose mothers agreed to participate in the study may differ from their peers in some systematic way.

In order to explore these differences, we compared the adolescents in the "grandmother group" to those in the rest of the larger sample along several dimensions. Unfortunately, few differences emerged, although one may be informative. Adolescents in the grandmother sample were significantly younger than those in the remainder of the sample. Although the difference was only six months, the range of ages differed for the two groups, with all the 14 year olds from the larger study in the grandmother group.

Adolescent object relations

As expected, the adolescents' level of object relations ranged from the high to low ends of the Krohn Scale (range 2-7, with 1 the lowest and 8 the highest score). This lends

support for the use of the Krohn Scale on interview data, and specifically on the Adult Attachment Interview. From each adolescent's interview, 3 summary scores were generated: the single highest, single lowest, and modal object relations score. Of the group of single highest scores, the average score was 4.2 (range 2-7). Of the single lowest scores, the average score was 3.3 (range 2-6). Of the modal group, the average score was 3.8 (range 2-6) (See Table 12).

Del Pre Tests

Del PRE Tests to measure the association between grandmother, adolescent, and infant attachment

Del PRE was used to test the association between grandmother, adolescent, and infant attachment. Del PRE allows one to measure subject by subject prediction, in ways that tests of association (or nonrandomness) like the chi-square do not. A 4 x 4 matrix examined by Del Pre was used.

Interestingly, grandmother and adolescent attachment models were not significantly related (See Table 13). In order to further investigate this lack of correspondence, additional analyses were run. A 2 x 2 chi-square was

performed, with specific attachment classifications collapsed into "autonomous" and "nonautonomous" categories, but this still produced no significant results (See Table 14). Correspondence on autonomous/nonautonomous classifications was observed in 66% of these grandmother-adolescent pairs, but the base rate for nonautonomous classification was 79% for adolescents. Also, since all interviews given an unresolved, "U" rating are also given a "forced" alternate rating of "D," "F," or "E," a 3 x 3 chi-square was performed using only the three original attachment categories (D,E,F). Again, the results did not reach significance (See Table 15).

However, the adolescents' attachment and her infants' attachment were highly related in a 4 x 4 matrix, using Del PRE ($p < .001$) (See Table 16). In fact, there was exact agreement in attachment classifications in 26 out of 42 cases (60%), and more general agreement between autonomous/nonautonomous adolescent attachment and secure/insecure infant attachment in 35 out of 42 cases (81%). All autonomous adolescents had secure babies (See Table 17).

T-Tests

T-tests measuring the association between adolescent attachment and object relations

T-tests were used to measure the association between adolescents' attachment classification and level of object relations. As predicted, object relations was highly related to attachment status. The single highest object relations score most meaningfully discriminated between autonomous and nonautonomous attachment. For the autonomous adolescents, single highest object relations scores ranged from 4 to 7 (mean=5.33, SD=1.00). For the nonautonomous adolescents, single highest scores ranged from 2 to 6 (mean=3.88, SD=1.07). T-tests revealed that the difference between the means of autonomous and nonautonomous adolescents was significant ($t=-3.66$, $df=39$, $p<.001$). Modal scores for autonomous adolescents ranged from 3 to 6 (mean=4.56, SD=1.33), while modal scores for nonautonomous adolescents ranged from 2 to 6 (mean=3.56, SD=1.01). T-tests showed that this difference was also significant ($t=-2.42$, $df=39$, $p<.05$). The single lowest object relations score was not significantly associated with attachment status (See Table 18).

T-tests measuring the association between adolescent
object relations and infant attachment

T-tests were also used to explore the relationship between adolescent object relations and infant attachment patterns. Adolescents' object relations was significantly associated with infant attachment. In this analysis, the single highest and modal object relations scores both clearly discriminated between secure and insecure attachment ($t=-2.60$, $df=39$, $p<.01$, and $t=-2.48$, $df=39$, $p<.05$, respectively) (See Table 19).

Correlations

Intercorrelations among Attachment Interview
(AAI) Sub-scales

Table 20 contains correlations among grandmother attachment sub-scales. These correlations were highly significant and all in theoretically expected directions (George et al., 1985; Kobak and Sceery, 1988). The sub-classification of coherence (i.e., the individual's ability to acknowledge and integrate contradictory memories and experiences) was especially related to other sub-scales. Thus, grandmothers who were highly coherent tended to have

unidealized representations of parents ($p < .001$), were unlikely to be unresolved about any significant loss or trauma ($p < .01$), tended to perceive childhood relationships with parents as loving ($p < .05$) and not rejecting ($p < .05$), and were unlikely to express much anger toward parents in the interview ($p < .05$). Grandmothers who perceived parents as rejecting in childhood did not see parents as loving ($p < .001$) and tended to express some anger toward their parents in the interview ($p < .01$). Those grandmothers who expressed anger toward their parents were unlikely to perceive early relationships with parents as loving ($p < .01$) and did not tend to have difficulty recalling memories about attachment relationships ($p < .05$). Finally, grandmothers who did have difficulty recalling memories did not tend to have role-reversing relationships with parents ($p < .05$).

Correlations among adolescent sub-scales were even more highly significant and also in theoretically expected directions (See Table 21). Again, coherence emerged as the single most widely correlated sub-classification. Adolescents high in coherency tended to see childhood relationships with parents as loving ($p < .001$) and not rejecting ($p < .001$), were unlikely to idealize relationships

with parents ($p < .001$), to be unresolved about any loss or trauma ($p < .01$), or to have difficulty recalling memories ($p < .05$). Among adolescents, idealization was also highly correlated with other sub-scales. Adolescents who idealized relationships with parents tended to perceive those relationships as rejecting ($p < .001$) and not loving ($p < .001$), tended to have difficulty recalling memories ($p < .05$), and to be unresolved about some significant loss or trauma ($p < .05$). Those adolescents who perceived early relationships with parents as loving did not tend to perceive them as rejecting ($p < .001$), were unlikely to have difficulty recalling memories ($p < .01$) or to be unresolved about any loss or trauma ($p < .01$). Finally, adolescents who expressed anger toward parents in the interview did not tend to have difficulty recalling memories ($p < .05$).

Correlations Across Grandmother and Adolescent

AAI Sub-scales

When sub-scales of the AAI of grandmothers and adolescents were compared, few significant correlations emerged (See Table 22). However, given the fact that major attachment classifications among grandmothers and adolescents were not related, it is informative to observe

several significant correlations among sub-scales. These correlations should be viewed cautiously though, since so few correlations were found, and they warrant replication.

Grandmothers who had difficulty recalling memories were likely to have daughters who also had difficulty recalling memories ($p < .05$). In addition, grandmothers who experienced role reversal in their relationship with a parent tended to have daughters who could recall significant memories related to attachment ($p < .05$). Finally, grandmothers with difficulty accessing childhood memories tended to have daughters who expressed little anger in the interview ($p < .05$). Although there are few significant correlations among grandmother and adolescent sub-scales, those that occurred are all related to memory. Thus, there seems to be some aspect of memory that remains consistent across generations.

Correlations among adolescent AAI sub-scales
and infant Strange Situation sub-scales

When adolescent attachment sub-scales were compared with infant attachment sub-scales, several interesting and theoretically predictable correlations were found at the .05 level (See Table 23). Adolescents who idealized childhood relationships with parents tended to have infants who did

not not seek proximity or try to maintain contact with them, but rather avoided them, after a stressful separation in the Strange Situation. In addition, adolescents who were highly coherent and who perceived early relationships with parents as loving were likely to have infants who did not resist contact or comfort from them upon reunion. Finally, adolescents who were unresolved about any loss or trauma did not tend to have infants who sought proximity to them upon reunion.

Correlations among adolescent object relations
and adolescent attachment sub-scales

There were many strong correlations between adolescent attachment sub-scales and single highest, lowest, and modal object relations scores (See Table 24). The single highest object relations score most clearly discriminated among attachment sub-scales. Adolescents' single highest object relations scores were related to perceptions of childhood relationships with parents as loving ($p < .001$), and not rejecting ($p < .001$), with coherency ($p < .001$), lack of idealization ($p < .05$), and little difficulty recalling memories related to attachment ($p < .001$). Single lowest scores were also correlated with perceptions of early

relationships with parents as loving ($p < .01$) and not rejecting ($p < .01$), with coherency ($p < .05$), and little difficulty recalling memories ($p < .001$). Finally, modal scores were related to perceptions of childhood relationships with parents as loving ($p < .01$) and not rejecting ($p < .01$), and with coherency ($p < .01$). There was also one surprising, but interesting result. Modal object relations scores were correlated with expression of anger toward parents in the interview ($p < .05$).

Correlations among adolescent object relations
and infant attachment sub-scales

There were no significant correlations among adolescent object relations and Strange Situation sub-scales, although the correlations between both highest and modal object relations scores and infant avoidance fell just short of significance (See Table 25).

CHAPTER V
DISCUSSION

Attachment theory postulates that patterns of attachment are transmitted more or less faithfully from one generation to the next (Bowlby, 1973). Much attachment research reflects this stability in the transmission of attachment from parents to their infants and children (Main et al., 1985; Main and Hesse, in press; Ward et al., 1988). The present study is no exception in that there was a strong correspondence between adolescent mothers' attachment and their babies' attachment to them. However, the present study is the first study to explore the transmission of attachment across three generations, and specifically, the correspondence between an adult parent's attachment and her adolescent daughter's attachment. Interestingly, there was no significant relationship between grandmother and adolescent attachment, although there was a strong correspondence between adolescent and infant attachment. This suggests that the transmission of attachment does not proceed in a linear fashion from generation to generation, at least not in high-stress, low-income, inner-city families.

An exploratory aim of the present study was to examine the relationship between adolescent mothers' level of object relations and internal working models of attachment. It was predicted that adolescent mothers' level of object relations would be related to their models of attachment and to their infants' attachment status. In fact, adolescent object relations was strongly related to both adolescent attachment and infant attachment. Thus, adolescents with higher levels of object relations were more likely to have autonomous models of attachment and more likely to have securely attached babies than adolescents with lower levels of object relations. Adolescent object relations and attachment were so highly associated that it appears that these measures may be tapping the same phenomenon of representational models.

As the Adult Attachment Interview (AAI) is a fairly new instrument (George et al., 1985), developed on a White, middle-class, educated sample in Berkeley, California, norms for its use with other socioeconomic and cultural groups are still being defined. Using the AAI with a sample of mostly minority, inner-city, adolescent mothers presents challenges to the coding and interpretation of the results of the interview.

Compared to previous middle-class studies on both

adolescents (Kobak and Sceery, 1988) and adults (Main et al., 1985), there were very low rates of autonomous classifications among both grandmothers and adolescent mothers in the present study. Past research has found ratings of autonomous classifications twice the number in this study. More importantly, in another sample of adolescent mothers interviewed postnatally with the Adult Attachment Interview, there were substantially higher rates of autonomous classifications (Carlson, 1989). In many ways, given the amount of stress, separation, trauma, and abuse suffered by this particular sample, these results may not be that surprising. However, compared to attachment research in infancy with high-risk samples (e.g., Egeland and Farber, 1984; Erickson, Sroufe, and Egeland 1985), the proportion of secure or autonomous functioning is still lower than expected.

While there are now numerous cross-cultural studies (e.g., Grossmann, Grossmann, Spangler, Suess, and Unzner, 1985; Miyake, Chen, and Campos, 1985; and Sagi, Lamb, Lewkowicz, Shoham, Dvir, and Estes, 1985) using the Infant Strange Situation, similar broad research has not yet been done with the Adult Attachment Interview. It is notable though, that many of the cross-cultural studies of infants

have found different proportions of attachment patterns from U.S. studies. For example, in a study in Northern Germany, the avoidant group (A) predominated over the secure group (B), which is most common in the U.S. (Grossmann et al., 1985). In a study of Kibbutz-reared infants in Israel, the proportion of resistant infants was far greater than that of the U.S. (Sagi et al., 1985). These researchers all suggest that their findings must be seen in light of different cultural expectations about childrearing.

In order to further explore the meaning of the low rates of autonomous functioning in the present study, we compared this sample of adolescent mothers' AAIs to 20 other adolescents from the larger study. Strikingly, more than twice as many adolescents in this comparison group were classified as autonomous. Thus, it seems that the sample of adolescents whose mothers were available and agreed to participate in this study differ from their peers in some systematic way.

When these two groups of adolescents were compared along a number of variables, few differences emerged to explain their differences in attachment. One interesting finding was that the adolescents in the "grandmother" group were significantly younger than the remainder of the sample.

Although the difference was only six months, the range of ages differed for the two groups, with all 14 year olds in the larger study in the "grandmother" group. While the significance of this age difference is still unclear, several intriguing hypotheses can be generated from this finding. It is possible that adolescents who have children in early adolescence differ in attachment status from older teenage mothers. It is also plausible that internal working models of attachment undergo change or reorganization during the course of adolescence (this will be discussed in more depth later).

The differences in attachment between adolescents whose mothers were reachable and agreed to participate and those whose mothers had died, moved away, or refused to be part of the study clearly suggests some selection bias in those adolescents in this study. The very notion of the adolescents' mothers being available and agreeing to be interviewed is an unexpected confounding variable.

One might predict, on the contrary, that adolescents with ongoing relationships with their mothers would be those whose mothers would be most willing to participate and those more likely to have autonomous relationships with their own mothers. Much research suggests that strong family support

networks often mitigate the negative consequences for teenage mothers and their children (Baldwin and Cain, 1980; Field et al., 1980; Furstenberg and Crawford, 1978; Garcia Coll, Sepkowski, and Lester, 1982; Levine et al., 1985; Russell, 1980).

On the other hand, it appears that many adolescent mothers who do have ongoing relationships with their own mothers do not have mature, autonomous relationships with them. Some research suggests that too much help and involvement from the grandmother can have an unfavorable influence on the adolescent mother and her child. The grandmother may compete with the teenager for the role of parent, which can undermine the adolescent's confidence (Unger and Wandersman, 1985). In the present study, it appears that adolescents whose mothers agreed to be interviewed were less likely to have autonomous models of attachments to their mothers than the adolescents whose mothers were unavailable or unwilling to be interviewed.

Discontinuity in the Transmission of Attachment
Across Three Generations

"Because in all these respects children tend unwittingly to identify with parents and therefore, to adopt, when they become parents, the same patterns of behavior toward children that they themselves have experienced during their own childhood, patterns of interaction are transmitted more or less faithfully from one generation to another."

Bowlby (1973), p.323

While attachment theory predicts a high level of stability in attachment patterns from one generation to the next, this prediction has only been tested empirically from parent to infant/child attachment. The present study is the first to explore the transmission of attachment from adult to adolescent child. There are a number of plausible and intriguing reasons for the lack of correspondence between grandmother and adolescent mother attachment in this study.

Egeland and Farber (1984) suggest that in economically disadvantaged families with stressful and unstable life circumstances, one might expect to find less continuity in development. In their study of 267 high-risk families, they observed changes in infant attachment from secure to insecure or insecure to secure between 12 and 18 months due to changing living situations, family dissolution, or

maternal attitude changes toward childrearing. In a previous study with the same sample, Vaughn et al. (1979) found changes in attachment between 12 and 18 months due to changes in the frequency of stressful life events. Egeland and Farber suggest that according to organizational developmental theory (Sroufe, 1979) it is coherence and not continuity which is of utmost importance. Thus, discontinuity may be understood given knowledge of the intervening events.

It is quite possible that the high degree of stress, trauma, separation, and loss experienced by these families affected the quality of attachment and the discontinuities in attachment patterns across generations. In addition, the caregiving environments and degree and quality of social support were significantly different for the grandmothers and their adolescent daughters. Many of the grandmothers in this study were originally from small towns in the South, the Caribbean Islands, or Latin America and were raised by either both parents or both grandparents, surrounded by close extended family. By contrast, most of the adolescents were raised in inner-city ghettos by one parent or caregiver and little extended family support. Many of these teenagers also lived for some time in foster homes or group homes

during adolescence.

Another possible factor related to the lack of correspondence between grandmothers and adolescents has to do with the inherent instability and shifting nature of adolescence as a developmental phase. There are qualitative differences in the nature of the individuation process at different phases of adolescence. Several important questions can be raised as to the stability of attachment from adolescence to adulthood. To date, no longitudinal research has been conducted to assess these critical questions. Thus, it is still an empirical question as to whether the organization of attachment, like ego development and object relations, goes through changes in the course of adolescence. Once adulthood is reached, do most individuals maintain or adopt similar patterns to their parents, or through differentiation or rebellion, is it possible for an individual to move from a nonautonomous to autonomous model of attachment if ones' mother is nonautonomous? This question will be explored in more depth in the section, Further Exploration of the Continuities and Discontinuities between Grandmothers and Adolescents.

A further question about the stability of attachment patterns concerns the fact that the adolescent attachment

interviews for this study were conducted prenatally. Bibring (1961) argues that pregnancy is often a time of considerable psychic reorganization where women tend to reevaluate their relationships with, and internal representations of their mothers. Benedek (1959) believes that each stage of infancy potentially provides opportunities for resolution of prior relational conflicts. Thus, it would be useful for a future study to assess the stability of attachment pre- and postnatally.

We do have strong evidence to make an inference about the continuity of adolescent attachment from the prenatal to postnatal period because of recent concurrent research from the larger project at New York Hospital of which this study is a part. A link has been found between prenatal adolescent attachment and infant attachment (in the present study) and an association has been found between infant attachment and postnatal adolescent attachment (Carlson, 1989). However, longitudinal research would still be necessary to confirm the direct continuity of attachment from the prenatal to postnatal period.

Finally, another possible reason why there was no association between grandmother and adolescent attachment is that adolescent mothers do not have ongoing attachment

relationships with their mothers. Attachment theorists' notion about the faithful transmission of attachment patterns applies to ongoing dependent relationships between parent and child. Clearly, many factors can intervene to change working models of attachment in the interim time between childhood and adulthood, such as a love relationship or marriage.

The Transmission of Memory Patterns from Grandmother
to Adolescent Mother

Although there were few correlations between grandmother and adolescent AAI subscales, there was one particularly interesting finding: the cross-generational continuity in the ability to recall childhood memories related to attachment. That is, grandmothers who had difficulty recalling childhood memories tended to have adolescent daughters who also had trouble recalling early memories. While this finding is provocative, one must be careful not to overinterpret the significance of so few correlations.

However, this continuity in memory patterns is consistent with Bowlby's (1980) theory of defensive

exclusion. Bowlby argues that the quality of childhood relationships may affect cognitive components of adult recall of childhood events and relationships. He suggests that when an infant is distressed (attachment behavior is activated), and her caregiver does not attend to her, first the child protests and becomes more distressed. But, if this is a chronic situation, eventually there is a deactivation of the systems controlling the attachment behavior. This is especially likely if the caregiver's response entails active rejection or when a child is threatened or punished for crying or demanding the caregiver's attention. Bowlby asserts that "this deactivation of the systems mediating attachment behavior, thought, and feeling appears to be achieved by the defensive exclusion, more or less complete, of sensory inflow of any and every kind that might activate attachment behavior and feeling." He suggests that the resulting state is one of partial or total emotional detachment (1980, p.70).

This transmission of memory patterns from mother to child is also consistent with the results of Main and Goldwyn's (1984) study predicting rejection of her infant from a mother's representations of her own childhood experiences. They found that parents of secure babies seemed

to have access to coherent recollections of childhood, while parents of insecure, avoidant infants were inconsistent and unfocused. Parents of insecure infants often insisted that they could not remember anything. Main and Goldwyn assert that their findings support Bowlby's notion that experience underlying anxious attachment tends to be defensively excluded from awareness.

Kobak and Sceery (1988), in their paper on attachment in late adolescence, discussed the connection between working models of attachment and affect regulation, and found distinct differences among three attachment groups in terms of memory of childhood experiences. They interviewed 53 adolescents with the Adult Attachment Interview in order to study affective and representational correlates of attachment organization during late adolescence.

They found that in the interviews of autonomous adolescents, parents were represented as loving and available during distressing events and good recall of childhood attachment experiences characterized these representations. Adolescents judged to be dismissing characterized parents as unloving and rejecting and had difficulty recalling distressing events in childhood. Preoccupied adolescents saw parents as loving but role

reversing, and while they did not have difficulty remembering, they tended to speak in a confusing, incoherent manner about childhood attachment experiences.

Kobak and Sceery hypothesize that the dismissing adolescents' failure to remember is an attempt to minimize distress-related affect which is associated with the experience of rejection. By contrast, the preoccupied adolescents, rather than cutting-off distressing affect, recalled distressing experiences in an incoherent way, and seemed to be continuing to struggle to seek support and approval from parents. As Fraiberg, Adelson, and Shapiro (1980) have observed, access to childhood pain can be a powerful deterrent against repetition in parenting, while loss of memory for the affect associated with painful experiences is linked to re-enacting childhood experiences in the next generation.

Further Exploration of Continuities and Discontinuities Between Grandmothers and Adolescents

In a closer examination of the continuities and discontinuities in attachment patterns between grandmothers and adolescent mothers, two interesting groups seem to

warrant special attention. The first is a subgroup of four families where all three generations--grandmother, adolescent, and infant are autonomous/secure. The second is a subgroup of five families where the grandmother is nonautonomous, but the adolescent and infant are autonomous/secure. Common characteristics of each group will be described and then one family (grandmother and adolescent) from each group will be highlighted.

In exploring the common characteristics of the grandmothers and the adolescents in the "all autonomous" group, one finds, first of all, that neither the grandmothers, nor the adolescents constitute a homogeneous group. Three out of the four grandmothers were raised by either mothers or grandmothers and had stable, loving, and close relationships with them. They are committed to their children and have a strong sense that the ways in which their mothers raised them influences how they raise their own children.

One of these three grandmothers described her relationship with her mother in the following way: "She was always there when I needed her, you know, support me, somebody to talk to...She made sure the time we came home from school, at least we had one parent we could depend on.

If something came up, she was always there for us."

Another grandmother discussed what she has learned from her relationship with her grandmother; "Well, one thing I have learned--I have learned that life is not a bowl of cherries. That's one thing I've learned. Definitely. When I was growing up, my grandmother would always say that. I didn't understand what she meant. But then when I became a young lady myself, you know, and then I had to deal with life, then I understand what she meant. Life is not a bowl of cherries." Asked what she hopes her daughter will learn from her, she said, "...If she's gonna have companionship, I hope that she would have learned how to choose the right person. Somebody that could a..a..lead her in the right direction in life, um, somebody that could teach her things that I wasn't able to teach her..."

The fourth grandmother was raised by parents who were generally more distant and less available. But, this woman, who will be described in more depth below, has a strikingly coherent and unidealized view of her childhood relationships and a deep appreciation of what her parents did offer her and why they were not capable of providing more nurturance.

These grandmothers have passed on to their adolescent daughters the loving representations that they developed

from their own caregiving experiences--or the reformulated representation they created by coming to terms with difficult childhood relationships. In turn, their adolescent daughters have gained the resources to establish early secure relationships with their own infants. The grandmothers all seem to possess a strong personal identity and a balance between autonomy and relatedness. They tend to be coherent and unidealized and have an ease of recall of early events. Finally, they have an understanding of the effects of early experiences and are realistic about any setbacks they encountered.

The four adolescents also share certain common characteristics, and yet their childhood experiences were quite different from each other. Two out of the four adolescents had a loving, close relationship with their mothers and felt that their mothers were really there for them. They both felt that they could talk to their mothers and would be comforted by them when upset. Both also felt that they learned important values from their mothers about the importance of relationships, and believe that their present mother-daughter relationship is mutual and engaging.

One of these adolescents, asked what she would do as a

child when she was upset, responded, "I think I kept it to myself and then my mother would come. And she always knew when something was wrong. So, eventually, I would have to tell her, but usually I would hold back at first and keep saying, "nothing, nothing, nothing." And then she would finally get it out of me, so I guess I still would tell her (chuckle), talk to her about it."

The other two out of four adolescents had more conflictual relationships with their mothers, either early in childhood or during adolescence. One had a difficult early relationship with her mother, but a closer relationship with her father. She has begun to come to terms with why her mother treated her the way she did. She has recently managed to establish a closer relationship with her mother. Describing the changes in her relationship with her mother, she states, "Me and my mother we never had a relationship...Until just recently..It was just that I wasn't close to mother...See back then I didn't know about things..she did, so I took it for bad. But now since I look at it...she wasn't wrong. And a lot of things to me now, she wasn't right, but she did the best to her mind. And that's the way she thought was to bring up a child...Me and my mother now, we like, I sit down and I talk to her. She's

like a sister to me now."

The other adolescent had a closer relationship with her mother as a child which became more conflictual as a teenager. She believes that her mother changed because of problems in her own life. It seems, though that the more secure early relationship gave her a solid base, so that she presently values openness and closeness in relationships. Asked how she would be different from her own mother with her child, she responded, "I'd be more open with my children. Let them feel free to discuss different topics with me. I'll try not to get as upset over things...I hope (my child) will learn not to be afraid to come and talk to me about anything, anything that bothers him."

While these four adolescents had quite different childhood experiences with their mothers, they all had at least one parent to whom they felt close during their early lives. What they share in common at this point in their lives is a lively personal presence in the interview, a direct and unidealized view of relationships, and an easy access to memories. They are aware of changes in their relationships and have a sense of the effects of childhood relationships on their present lives.

In order to give more of a flavor of how the women in these families actually talk about their attachment experiences in the interview, excerpts from interviews with one family (grandmother and adolescent) will now be presented. This is the family where the grandmother had more distant relationships with her parents, but has actively worked to come to terms with childhood relationships and experiences.

Describing her family, this grandmother stated, "We come from a very poor family, sharecroppers, O.K.? And from the time I know myself, I had responsibility, either taking care of my brother and sister, working in the field...I mean as I look back, to me I didn't have the opportunity to grow as a child. But, I wasn't intent on being a sharecropper's daughter all my life." Asked about her relationship with her mother, she responded, "It was, we didn't relate as far as talking. It was either mommy out in the field, mommy in the kitchen, or momma with the group. I love my mother, O.K.?, but we didn't talk personal, you know, like how you feel about this?"

During adolescence she experienced a drive to get away and she left and moved to a Northern city. She described growing closer to her parents as she got older, and

developing a more adult relationship with them. She noted, "I don't blame my mother and father because they didn't have the assets to be better, you know what I mean? They had no schooling. I think my father went to second grade and my mother, fourth. And that's the way they were raised. We may not have had the things that most people had, and like I say, we wasn't close, we didn't talk personal, but still it was the only kind of love I knew, and to me, that was love."

Asked for three wishes for her adolescent daughter and granddaughter, she responded, "What I wish for them is a very close relationship where she can tell her feelings and have an open mind, talk to her daughter where she would listen and don't get pregnant to have to go through what her mother and grandmother did. The second thing is to find a home and a chance to expand and grow with her baby and whoever she chooses as a man."

Finally, asked what she learned from her childhood relationships with her parents, she responded, "Even though it caused a lot of pain, um, what I have learned is that love comes in many forms and sizes. I learned to be patient and understanding about what others may feel, and most of all, I've learned that where everything fails, you got to confront whatever may be in your life, deal with it the best

way you know how. I learned that the strong within me, that's what brought me out from what I am today. My own ingredients that God gave me, not educational wise, now, but inner intelligence brought me from where I was. I just learned to love people and accept them."

This eloquent woman has such a powerful personal presence in the interview. She is coherent and unidealized about relationships which were painful for her, shows a lack of unconscious identification with parents, and has managed to forgive them for their shortcomings. As she did not have other consistent, nurturing attachment figures in her early life, it is rather surprising that she was able to develop such a warm and loving model for parenting relationships.

Her daughter is also self-possessed and forthright in her descriptions of early childhood relationships. While she is appropriately still in the process of differentiating from her mother and defining her own identity, she has a wisdom about the transmission of attachment patterns and clearly values what her mother has taught her.

When she was asked to describe her childhood relationship with her mother around age five, she responded, "Fun...someone you could talk to...sincere...She used to read us stories, play things...She let us know she loved us.

(How?) Hug us...Like when you come home from school and be like in kindergarten and kindergarten kids talk a lot...and she'd just sit down and listen." Asked why she felt closer to her mother than her father, she said, "She was always there...I couldn't talk to him...I mean sometimes I didn't feel comfortable around him. Or like when he'd come in the house, all it was, was 'be quiet, don't play or nothing.' That's how it was."

When she was asked how she felt about the separation from her mother on the first days of school, she responded, "It was exciting...I wanted to go. Get good grades... Maybe after a few days it wouldn't be that bad, cause...like kindergarten, that's when I went a half day. So I knew she would be there in the afternoons...I'd know I'll see my mother at the end. She'd come and pick me up."

Later in the interview, she was asked if there had been changes in her relationship with her mother from childhood until now. She noted: "Um, no...we still talk. We may argue, but we still talk...Cause, to me, my mother act like she know everything, right?...And sometimes we get into an argument about that, cause I be like, 'Ma, you don't know everything', like that. But, sometimes, most of the times, she's right, cause she's been through more than I have. But,

at that time, I don't feel like that (laughs)."

Questioned about whether there are things she worries about for her child, she said, "Um...About if I'm gonna raise him right. I'm just going to be doing what I learned from my mother. There's going to be changes in some ways, because now times are different, but it's still going to go on following that pattern."

Perhaps an even more intriguing subgroup in terms of their ability to surmount early abuse and trauma and reformulate autonomous models of attachment, is the group of autonomous adolescents whose mothers are nonautonomous. These resilient adolescents have all been able to establish secure relationships with their own infants. The grandmothers, the mothers of these adolescents, are all unresolved to some degree about a major loss or trauma. Four out of five actually received "unresolved" scores (in addition to their primary "detached/dismissing" or "enmeshed/preoccupied" classifications) and the fifth clearly has not come to terms with the abuse that she suffered. There is an extraordinary amount of rejection, neglect, and trauma in all of their histories and a great deal of repetition of abuse with their own daughters.

Three out of five of the grandmothers have enmeshed internal working models of attachment. These women come across as passive, childish, and incoherent in the interviews. They often appear overwhelmed by their painful relationships and experiences and tend to blame themselves for their abuse. One of these "enmeshed" grandmothers discussed her sadness, anger, and sense of wonder about having to become an adult: "It seem like my childhood just went to nothin...Yeah, like I grew up too fast and I remember statin to my mother, I think I was 19, after I had (adolescent daughter)...I told her I didn't want to grow up and she say, 'It's too late.' And a lot of people tell me now to this day, I'm 37, I don't act my age. And ...I even came out and told (daughter), I say, 'I'm be honest with you, I don't think I grew up...How do every year I get a birthday, but I don't act like I'm that old?'...In my dreams, I never get over 21."

The second of these three enmeshed grandmothers felt rejected by her mother because her mother abandoned her to the care of her grandmother from ages 3 to 8, and then to her father at age 11, who badly physically abused her. It becomes clear in her interview that she does not have a sense of the effects of her childhood experiences on her own

life. Asked what she learned from her own childhood, she replies, "I don't know. Like I tell you before, I think I make myself, because, you know, when I more needed my mother, she sent me with my father. My father don't give me, you know, the love I need in those days. My, I think, I don't learn nothing. I, I raised myself." One learns from her daughter's interview that, in fact, she gave her daughter over to her daughter's father at an early age, and he sexually and physically abused her. Thus, she unconsciously identified with her mother and repeated her mother's pattern with her own daughter.

The third "enmeshed" grandmother experienced one of the most horrendous histories of any woman in the study. She and her siblings were abused and abandoned by both parents and left alone to die in the woods. When she discussed her early childhood relationships with her parents, she idealized her mother, rationalized her mother's cruelty, and blamed herself for the abuse, with such comments as, "it was really our fault," "it didn't bother us," and "I deserved it." She and her daughter will be discussed later in greater detail.

The other two out of five grandmothers were "dismissing" in their attachment organization. Both of these women maintain highly idealized representations of their

early relationships, and have a great deal of trouble accessing memories to support these claims. One grandmother, who was primarily cared for by her own grandmother responded defensively to the interviewer's question about her childhood relationships with her parents: "From what I can remember, I was well kept. I got basically everything I wanted because I was an only child. At five, what do you really, you know, but what do you want at five? Come on, what do you want at five years old, except to be clean and, you know?"

The other "dismissing" grandmother had a very rejecting relationship with her mother and also holds tenaciously to a highly idealized view of her childhood. This grandmother's interview was notable because of her inability or unwillingness to discuss childhood experiences. She insisted, "you can't take me back that far...It's just a lot of personal thing, I don't want to go back that far. It's too much memory there...I don't want to go nowhere near. I'll start from 15 on up, without going back, nothing younger than 15."

By actively rebelling or separating from their mothers, the resilient adolescent daughters of these women have been

able to reorganize their models of attachment, and have managed to provide a secure base for their own infants. Perhaps, in many cases, one way in which they have accomplished this impressive feat is by seeking out alternative caregivers or supportive boyfriends. Almost all of these girls (4 out of 5) experienced multiple separations from their mothers, as they were sent to relatives, foster homes, or group homes. They are generally quite clear and unidealized about their relationships with their mothers and have relatively easy access to painful memories. Several have just recently begun to establish better relationships with their mothers.

One adolescent who was abandoned by her mother to her father's care at an early age seemed open and unidealized about her mother's rejection. She returned to her mother in early adolescence. She stated, "She probably didn't want me, the way I think about it, she just didn't want me, and she gave me away. Cause she could have looked for me. She had the phone number, she had the address. She could have written. She didn't, for all those years. So, what I think, she just didn't want to know about me."

Another adolescent, who was sent to several foster homes and group homes, seems to possess a real ability to

form attachments, as she established close relationships with her step-father, foster family, and boyfriend. She also seems to be empathic about her mother's erratic caregiving, given the burdens placed on her mother. Questioned about why her mother acted the way she did, she replied, "...She was just a single parent growing up, but it was like she was growing. Well, it is like my older sister is twenty. (Other sibling) is 18. I'm 17. My mother's just 37 years old. It's just like she's growing up with us. And she just don't want us--she just used to say, she don't want us to be like she is, like she was, and get pregnant so early and whatnot."

One of the other girls gave vivid descriptions of her early abusive relationship with her mother, but has begun to establish a more satisfying and mutual relationship just recently. She was asked about her relationship with her mother now: "It's better than it's ever been. (How's that?) I don't know, but it is. We talk, I mean, we talk, like you know, if she was my best friend. And we ain't never did that before. We spend time together, even if her boyfriend is there, we ain't never did that before. I mean it's a whole different (last word is inaudible)."

A fourth teenager had a more loving early relationship with her mother which deteriorated when her parents started

to drink heavily. She was then sent to multiple relatives and group homes. Asked for three wishes for her child, she responded, "One, that he don't go through what I had to go through. (What do you mean?) I mean...I hope he don't run away from home like I did. I won't give him no trouble like that and that, you know, he'll love me the way I love him back...That when he grow up, he can have everything, and it won't be hard for him like it's hard for me now, cause I've got to struggle. Cause if I don't get out of school, I won't have nothing to offer this baby...I hope he don't have...a child early like I did."

Finally, the last teenager was the only one who lived with her parents throughout her childhood, although she was somewhat physically abused by her mother. She possesses a clarity and thoughtfulness about her experiences that is striking. She and her mother will be discussed at length below.

Now, in order to give one example of a family where the adolescent daughter has struggled to separate from a difficult relationship with her mother and re-work her own autonomous attachment model, excerpts from the grandmother's and adolescent's interviews will be presented. This is the

grandmother who was rated "enmeshed," who had a particularly terrible history and tended to blame herself for the abuse.

This grandmother began the interview by launching right into her childhood history: "My parents abandoned us. Um, my mother left my father, then my father left the children, cause he didn't want the responsibility of taking care of children by himself. Um, what they did, they kind of like left us all to die, really, to be honest, um, and after trying to do things like gather up some, because we lived, um, like on a farm area, and trying to gather up something for my brothers and sisters to eat, trying to pop corn, which wasn't popcorn, which I could have set the whole house on fire (amused). Um, after I realized that nobody was coming to help, and whatever, then I finally realized that the corn wasn't going to pop. So, we just, um, went, inside of our house, it was a one room house, and we got into bed, and you know, we just, I guess we looked forward to whatever happening to us happen." She was seven years old.

After four days, their grandfather "heard" that they were alone and brought them back to his house. Their mother wrote him a letter, saying, "you should have let them all go to hell" and then their father came and "sold" them to different people in a nearby town. After several years of

court battles, the children were brought back to live with their grandfather, until their mother reclaimed them when this woman was ten. She described these events in fairly incoherent detail, as she shifted from mundane details to disturbing events. She went on: "So, even though we were with her, uh, again, life became very miserable, and uh, by the time I was 15, then I got married because I couldn't take it any more. I got married early, because I wanted a dress for, for graduation from junior high school."

Asked to describe her childhood relationship with her mother, she replied, "Well, um, I loved my mother, but, uh, I don't know, there was some things that had happened in her life where she weren't able to show love back to her children. Um, she had them, but that was about it. Yeah, uh, ah, an incident happened were like one of my sisters had, uh, sister's got her arm shot off, and it was like, my sister had, uh, she was, she loved guns...and, uh, she said, 'I can pull the trigger' and I said, 'I can too'...and we didn't know the gun was loaded...so I persuaded her to pull the trigger first, and she lost her arm."

Asked to whom she felt the closest, she responded, "In what way?... My grandfather. Yeah, yeah, I think I was closest to him." (Why?) "Um, I, I just was attached to him."

It's hard to detach yourself from somebody you know that really care. So I was attached to him, no matter what he did, he was never wrong in my eyes, even though some things he did was wrong."

When she was asked to think of any memories of what would happen when she was hurt, she replied, "I remember, yeah, we were, it was really our fault, cause my mother had four girls and she hated doing girl's hair." (We) were playing in the dirt and "we was throwing dirt...into each other's hair and my mother...saw us, and she just went crazy...she just bumped all of our heads one good time against (the house), bam, bam, bam, bam (laughs)...and I was hurt...and I cried, and then I forgot about it, cause I knew we were wrong. We didn't have any business throwing dirt..."

Finally, asked if she ever felt rejected, she replied, "No, not really rejected. I mean, when they left us, yeah, like, I felt that they didn't want us. You know, things like that never bothered me...It never bothered me. I was a person that just like to be alone, I'd grew into that kind of thing."

Given the traumatic experiences in her life, and perhaps, more importantly, the extent to which she is still so incoherent and unresolved about her past, it is

surprising that this woman could raise an "autonomous" adolescent. Her daughter, who is bright, determined, and independent, is aware of and direct about the shortcomings in her mother's parenting. She also possesses a certain wisdom about relationships and caregiving for a child.

She was asked first about her early relationships with her parents and she presented a range of descriptions, such as "it was O.K.," "fun," "discipline," that reflect various aspects of the relationship in an unidealized way. She offered memories of her mother reading them to sleep at night alongside descriptions of her mother beating them with belts and cords. When she was asked how her experiences with her parents have affected her personality, she said, "Nothing, it made me a different person. (How?) Cause I don't want to end up like that. You know, I don't want to be like them. I want, you know, I feel that the way that I felt that they should be is the way that I'm going to be. You know, the way, I felt that they should be like parents, that's the way I'm going to be...It has influenced because it make you see things in a different light...It makes you see the difference between the way you should be and the way you shouldn't be."

Asked in what ways she is going to be different with

her own child, she said, "...I'm gonna make it, where she can feel happy about talking to me and won't feel scared to come and tell me something. And if she gets into some kind of trouble or something, she can come right to me and tell me, instead of thinking about running away from the problem...I just want op, have an open relationship with her."

She was then asked what aspects of her personality come from the way she was brought up, and she responded, "The way I speak out to people. Because my parents...will sit around and they'll say something about somebody. But they won't tell that person how they feel about them. But, you see I learned that you don't sit back and hold nothing in. Because the more you hold it in, the more it hurts, so you, you may end up doing something that you don't really want to do. So, it's better to let that person know exactly how you feel instead of waiting until it builds all up, and then you get too angry to control it."

Asked if there have been any changes in her relationships with her parents since childhood, she replied, "Yeah, now my parents...want to try to mold me, you know, make me into a way like they are. They want me to raise my child the way that they raised me. But, you know, I don't

want to raise my child the way they raised me. I want to raise her in a different way, because every parent has their own technique of raising a child. And I don't see where beating or anything will make a child react better. I'd see where talking do much more better than beating because it's like I said, beating cause resentment...You know, you try to make the child feel like they're worth something...A child will have his mind. A mind got to grow. But, if you always beating that child, that mind's not gonna grow like it should."

This adolescent has struggled to deliberately separate herself from her parents in terms of their values, emotional style, and childcare patterns in order to develop her own unique perspective and life plan. As a result, she has a certain detachment in terms of her insistence upon her complete "differentness" from her parents. She, like the other adolescents in this subgroup, has managed to raise a 15 month old infant with a secure attachment to her.

It is interesting and provocative that these five adolescents have managed to differentiate from their mothers and reformulate autonomous models of attachment. However, the stability of this secure attachment remains unclear until longitudinal follow-up. It would be important to understand

more about how these teenagers have been able to become autonomous in order to better predict the long-term stability of their secure attachment, given the extent of disorganization and incoherence in their mothers' representations.

Object Relations and Attachment Theory: The Krohn Scale and its Association to Adolescent and Infant Attachment

Both attachment theory and object relations theory focus on the caregiver-infant relationship and on the mental models of self and other that a child develops through interactions with her caregiver. Both theories posit that these representational models are formed early in childhood and tend to guide the individual's construction of subsequent relationships. However, though Bowlby discussed the issue of internal working models as early as 1973 (Bowlby, 1973; 1980), attachment research has only recently evolved from a focus on infant-mother attachment and its developmental stability to a focus on adults' mental representations of attachment. Attachment theorists are still in the process of exploring different dimensions and refining conceptualizations of internal working models.

Thus, attachment theory, at this point, is more limited than object relations theory in describing the complexity of adults' mental representation. Attachment theory is also a theory of normal development and attachment research has focused more on delineating secure and insecure patterns of behavior, than on exploring the dynamics of insecure patterns.

The primary emphasis of object relations theory has always been on the representation of self and other, the intrapsychic structures that are the consequence of the internalization of formative interpersonal relationships. Thus, object relations theory provides a theoretical framework which can inform research in attachment by its broader explication of the process of internalization of relationships, the complexity of mental representation, and the ways in which object representation influences the interpersonal relationships in a person's life. Object relations theory may be particularly useful in describing the ways in which insecure patterns are formed, and subsequently lead to conflicted personality development (Wright, 1986).

While object relations theory suggests that representational models are formed through interactions with

significant caregivers, empirical object relations research (e.g., Blatt, Brenneis, Schimek, and Glick, 1976; Blatt and Lerner, 1983; Mayman, 1967) has not focused on the parent-child relationship or the impact of a parent's representational model on his relationship with his child. Instead, object relations research has focused more on the assessment of object representational models in adults and their relation to psychopathology and normal development.

While the primary focus of the present study is the transmission of attachment across three generations, it is believed that adolescent mothers must also be viewed in terms of the developmental process of adolescence. Many theorists point to adolescent mothers' difficulty with differentiation (Sugar, 1979), their attempts to force a resolution of intergenerational dependency conflicts (Fischer and Scharf, 1980), and conflicts between being mothered and mothering (Schaffer and Pine, 1972).

Since adolescents are in the process of differentiating from their own mothers, it was predicted that adolescents who are further along in this process would be more likely to have an autonomous model of attachment and thus, better able to establish a secure relationship with their infant.

In fact, the adolescent's level of object relations was

significantly related to her internal working model of attachment and to her infant's attachment to her. This is the first study to empirically examine the correspondence between models of attachment and object representation. Internal working models of attachment and level of object relations were so highly correlated that one might assume they are actually measuring the same concept. However, since adolescent attachment and object relations were derived from the same measure, the Adult Attachment Interview, other measures of object relations would be necessary to validate this finding. It is possible that the strong association between attachment and object relations had as much to do with the fact that they were drawn from the same measures, as with the similarity of the phenomena.

In order to further explore the relationship between these two variables, it is intriguing to reflect upon the correlations between adolescent object relations and AAI subscales. In addition to having an autonomous model of attachment, adolescents with a high level of object relations were likely to have had loving relationships with parents who were not rejecting. In terms of their current state of mind with regard to attachment, they tended to be coherent in their descriptions of relationships and events,

to have unidealized representations of parents, and to have little difficulty recalling memories related to attachment.

These correlations are quite consistent with object relations theory which posits that object representations are initially vague and diffuse and gradually become increasingly differentiated, integrated, accurate, and well-articulated (Blatt and Lerner, 1983). The Krohn Scale proceeds from the lowest level where the world seems to be completely lifeless, vacant, strange, and essentially without people, to a slightly higher level where people are either undifferentiated and interchangeable or solely seen as need gratifying objects, to the highest level where there is a sense of rapport with people, a well-developed understanding of their thoughts, feelings, and conflicts, and a great deal of self and interpersonal awareness (Krohn and Mayman, 1974).

The Krohn Scale was originally developed for use on dreams, early memories, and the Rorschach. This is the first study to apply the scale to the Adult Attachment Interview (AAI). The results demonstrate that the Krohn Scale can be applied fruitfully to semi-structured clinical interviews like the AAI. All interviews were codable with the scale and scale scores ranged from the high to low ends of the scale.

However, it is important to note that the AAI taps more conscious, less projective material than previous data to which the Krohn Scale has been applied. Future studies should examine the correspondence between these more and less conscious measures of object relations. It is possible that the more purely projective measures like the Rorschach, reports of dreams or early memories, capture the more primitive, repressed material which might be defended against in a semi-structured interview.

It is significant that adolescent object relations strongly corresponded to infant attachment, though not surprising given the strong correspondence between adolescent attachment and object relations. Adolescents with high levels of object representation tended to have infants with secure attachments to them. This finding does represent a further expansion in the potential use of measures of object relations, and the Krohn Scale in particular, since empirical object relations research has not focused on the parent-child relationship or the impact of a parent's representational model on her relationship with her child.

Limitations of Study and Suggestions for Future Research

There are clearly limitations to this study and many unanswered questions reserved for future research on intergenerational issues in families with adolescent mothers.

While this study focuses on a complex process of the transmission of attachment patterns, taking into account the contribution of the adolescent's level of object relations, there is only a single outcome measure: infant attachment. Even though the Strange Situation is a highly reliable, valid, and valuable procedure to measure infant attachment, it taps only one of a number of important factors in the early developmental process. Future studies could look at other affective, cognitive, and interpersonal variables of infants (and parents) to determine other broader effects of the transmission of attachment. In fact, the larger study of which this research is a part incorporates other infant variables and is longitudinal, following the infants for several years to assess the stability of infant attachment.

The association between adolescent object relations and adolescent and infant attachment was considered an exploratory aspect of this study. This is primarily because the Krohn Scale had not been applied previously to the Adult Attachment Interview and was not validated by any other

measures of object relations. While adolescent object relations was significantly related to both adolescent and infant attachment, future studies should examine other assessments of object representation as well in order to validate this finding.

While there have now been numerous cross-cultural studies with the Strange Situation, the Adult Attachment Interview is still a relatively recent research tool which has rarely been applied to other ethnic and cultural groups. Questions still exist about the applicability of an interview designed on a White, middle-class, educated sample for people of other cultural and class backgrounds, especially as English was not the first language for several of the grandmothers. In fact, rates of autonomous classifications were low for both grandmothers and adolescent mothers, compared to previous studies. In order not to judge different subcultures by White, middle-class norms, these low rates of autonomous attachment must be interpreted cautiously.

It is important to note, in addition, that the present sample is fairly heterogeneous, as the grandmothers came from the Caribbean, Latin America, the rural South, and Northern U.S. cities. Although it was beyond the scope of

this study, it would be interesting to explore the impact of such factors as immigration and acculturation on family relationships. In addition, since families in this and many other populations often rely on a large network of people in the community, such as ministers, neighbors, and relatives for support, it would be valuable in another study to explore the impact of social support on attachment.

It should also be mentioned that while the majority of subjects were inner-city Blacks and Hispanics, most of the researchers were White and middle-class. Although it is not known how these background differences may have affected the comfort of the subjects, future studies with the AAI in this population should include interviewers of the same cultural backgrounds as the subjects.

Finally, adolescence may be inherently too unstable a time to examine intergenerational continuity. Or, as Sroufe (1979) points out, perhaps it is essential to look for coherence, not necessarily continuity. Thus, maybe there are other qualities in adolescence not captured by the present adult scoring of the AAI which would predict later autonomous functioning (Carlson, 1989). Future longitudinal research in this area might explore whether there are changes in attachment organization throughout adolescence

and from adolescence to adulthood. Another intriguing possibility would be to assess attachment across three generations with grandmothers, adult mothers and their babies.

The larger project of which this study is a part will be looking at a number of other critical issues such as the differences between pre- and postnatal adolescent attachment interviews to see whether there are changes in attachment from pregnancy to the first year of parenting. Also, grandmothers and adolescents will be videotaped in a problem-solving task. This data about current mother-daughter interaction may provide some important information in explaining the discontinuity in attachment between grandmothers and adolescents in this study.

Research and Clinical Implications of Study

This study raises possibilities for new and broader research integrating attachment and object relations theory and has a number of clinical implications for future work with families of adolescent mothers.

Attachment and object relations theorists both concentrate on parent-child relationships and on the

representational models developed through these early interactions. However, attachment and object relations empirical research, in contrast, have taken very different directions. Attachment research has focused on parent-infant attachment and the impact of this relationship over the course of childhood, and recently on the connection between a parent's representational model and her child's attachment. Object relations research, as noted in the previous section, has looked more at adult's representational models and their impact on other facets of that individual's life.

Given the overlaps between the concepts of working models and representational models, this study suggests that aspects of object relations and attachment research can fruitfully be integrated into the same studies in order to further explore the nature of these phenomena. Although these questions go beyond the scope of the present study, there are a number of ways in which attachment and object relations theory and research can inform and enrich each other.

Attachment theory offers object object relations an empirical model for assessing parent-child relations and the intergenerational transmission of relationship patterns.

However, attachment theory has focused almost exclusively on normal development, and object relations theory provides a broader continuum for understanding the range of human behavior and relationships, including more primitive or pathological development. Object relations also offers attachment a theoretical developmental model for assessing changes in representational models.

While there has been much research and intervention aimed at adolescent mothers, adolescent parenthood continues to be one of the pressing social problems of our time, especially in the inner-city. Much research on adolescent mothers has focused on group differences between adolescent and older mothers or between adolescent mothers and peers who do not have children. These kinds of studies can obfuscate crucial individual differences among teenage mothers, without taking into account the strengths and coping skills of many adolescent mothers. By focusing on individual differences and family patterns, this study points to the range of variation that exists in this population and examines the mechanisms through which these patterns get transmitted from one generation to the next.

One important implication of this study is that attachment does not seem to progress in a linear way from

childhood through adolescence and adulthood. A rather hopeful tentative finding that deserves replication is that there seems to be the potential for re-working early maladaptive attachment patterns. There was only a small group of adolescents who were able to extricate themselves from very difficult early parenting relationships and develop autonomous attachment models and secure attachments with their infants. Nonetheless, this process is quite a difficult and challenging one, and these adolescents, by actively separating from their mothers and seeking alternative parenting networks, provide an impressive example of how this may be possible.

Clearly, adolescent mothers who have the strength and maturity to reformulate representations of attachment and form secure relationships with their children have a better prognosis in terms of their own parenting abilities than others who have not been able to accomplish this growth. Likewise, adolescents who have had secure and autonomous relationships with their parents can draw from this critical support in raising their child. Thus, it is the teenage mothers who have not developed more autonomous representations of self and other and have not developed secure attachments to their infants who are most at-risk for

continuing the cycle of less adaptive attachment patterns.

Interventions aimed at including the larger family network in treatment and working on resolving conflicts between adolescents and their parents, so that the adolescents can find some balance between autonomy and support might be useful. If parents are not available, it would be important to provide adolescents with some alternative parenting figures to help them through this unstable time. In either case, these adolescents could benefit from parent-infant psychotherapy focusing on helping them establish more autonomous representations of attachment and more nurturing relationships with their infants.

Table 1

Demographic Data: Adolescent Mothers

| | <u>Mean</u> | <u>Standard Deviation</u> | <u>Range</u> |
|----------------------------|-------------|---------------------------|--------------|
| Age at infant's birth | 16.2 | 1.03 | 14-18 |
| Years of educ. | 10.0 | 1.01 | 8-12 |
| Age last lived with mother | 14.4 | 4.14 | 2-16 |

Table 2

Caregivers in Childhood (6-10 years):
Grandmothers vs. Adolescent Mothers

| | <u>Grandmothers</u> | <u>Adolescents</u> |
|---|---------------------|--------------------|
| Mother and father or both grandparents | 65% | 42% |
| Mother or grandmother alone | 15% | 46% |
| Other | 20% | 12% |

$\chi^2 (2) = 9.12, p < .05$

Table 3

**Experience of Physical Abuse in Childhood:
Grandmothers vs. Adolescents**

| | <u>Grandmothers</u> | <u>Adolescents</u> |
|------------------------------------|---------------------|--------------------|
| No physical abuse or threats | 36% | 56% |
| Culturally normative punishment | 54% | 29% |
| Physical abuse | 10% | 15% |

$\chi^2 (2) = 5.37, NS$

Table 4

**Abandonment, Neglect, or Major Separations
in Childhood: Grandmothers vs. Adolescents**

| | <u>Grandmothers</u> | <u>Adolescents</u> |
|--|---------------------|--------------------|
| No major separations after 2 years | 85% | 71% |
| Significant separation and/or neglect | 15% | 29% |

$\chi^2 (1) = 2.56, NS$

Table 5

**Death of Attachment Figure in Childhood or
Adolescence: Grandmothers vs. Adolescents**

| | <u>Grandmothers</u> | <u>Adolescents</u> |
|------------------------------|---------------------|--------------------|
| Loss of attachment figure | 28% | 14% |
| No loss | 72% | 86% |

$\chi^2 (1) = 2.02, NS$

Table 6

Demographic Data: Grandmothers

| | <u>Mean</u> | <u>Standard Deviation</u> | <u>Range</u> |
|--------------------------|-------------|---------------------------|--------------|
| Age (in years) | 45 | 7.88 | 32-69 |
| Years of education | 12.2 | 2.13 | 8-17 |
| Income \$3,000-70,000 | \$16,000 | 12.92 | |
| No. of children | 3.5 | 1.72 | 1-8 |
| Age had 1st child | 21.1 | 4.98 | 15-39 |

| | <u>Frequency</u> | <u>% of Total</u> |
|---|------------------|-------------------|
| Marital status | | |
| Never married | 5 | 12.2% |
| Currently married | 11 | 26.8% |
| Common-law marriage | 2 | 4.9% |
| Separated | 5 | 12.2% |
| Divorced | 14 | 34.1% |
| Other (usually widowed) | 4 | 9.8% |
| Other adolescent daughters with children | | |
| Yes | 5 | 12% |
| No | 36 | 78% |
| Currently Working | | |
| Yes | 25 | 61% |
| Full-time | 21 | 84% |
| Part-time | 4 | 16% |
| No | 16 | 39% |
| Receive public assistance | | |
| Yes | 15 | 36.6% |
| No | 26 | 63.4% |

Table 7

**Grandmothers' Responses to their Adolescents'
Pregnancies and to Becoming a Grandmother**

| | <u>Frequency</u> | <u>% of Total</u> |
|---|------------------|-------------------|
| Initial reactions to daughter's pregnancy | | |
| Very upset | 31 | 75.6% |
| Worried, not upset | 5 | 12.2% |
| Pos. and neg. feelings | 3 | 7.3% |
| Pleased | 1 | 2.4% |
| Very happy | 1 | 2.4% |
| Feelings now about being a grandmother? | | |
| Negative | 5 | 12.2% |
| Neutral | 9 | 22.0% |
| Positive | 14 | 34.1% |
| Very positive | 13 | 31.7% |
| Good time in your life to become a grandmother? | | |
| Yes | 12 | 29.3% |
| No | 15 | 36.6% |
| O.K. (yes and no) | 13 | 31.7% |
| N.A. | 1 | 2.4% |

Table 8

Distribution of Grandmothers' Attachment Classifications
(AAI)

| | <u>Frequency</u> | <u>% of Total</u> |
|------------|------------------|-------------------|
| Detached | 12 | 29% |
| Autonomous | 13 | 32% |
| Enmeshed | 3 | 7% |
| Unresolved | 13 | 32% |

Table 9

Distribution of Adolescents' Attachment Classifications (AAI)

| | <u>Frequency</u> | <u>% of Total</u> |
|------------|------------------|-------------------|
| Detached | 20 | 48% |
| Autonomous | 9 | 21% |
| Enmeshed | 3 | 7% |
| Unresolved | 10 | 24% |

Table 10

Distribution of Infants' Attachment Classifications
(Strange Situation)

| | <u>Frequency</u> | <u>% of Total</u> |
|-------------------|------------------|-------------------|
| Anxious-Avoidant | 14 | 36% |
| Secure | 16 | 38% |
| Anxious-Resistant | 3 | 7% |
| Disorganized | 9 | 19% |

Table 11

Distribution of Adolescent AAI Classifications:
Grandmother Sample vs. Remainder of Sample

| | <u>Grandmother Sample</u> | <u>Remainder</u> |
|---------------|---------------------------|------------------|
| Autonomous | 21% | 47% |
| Nonautonomous | 79% | 53% |

$\chi^2 (1) = 4.03, p < .05$

Table 12

Distribution of Adolescent Object Relations
(Krohn Scale)

| | <u>Mean</u> | <u>Standard Deviation</u> | <u>Range</u> |
|------------------------------|-------------|---------------------------|--------------|
| Single highest O.R. score | 4.20 | 1.21 | 2-7 |
| Single lowest O.R. score | 3.32 | .85 | 2-6 |
| Modal O.R. score | 3.78 | 1.15 | 2-6 |

Table 13

**Del PRE Test to Measure the Association between
Grandmother and Adolescent Attachment (AAI)**

| | <u>Grandmother AAI</u> | | | | |
|------------|------------------------|------------|----------|------------|----------|
| | Detached | Autonomous | Enmeshed | Unresolved | T |
| Detached | 8 | 6 | 1 | 5 | 20 |
| Autonomous | | 4 | 1 | 4 | 9 |
| Enmeshed | 2 | | | 1 | 3 |
| Unresolved | 2 | 3 | 2 | 3 | 10 |
| T | 12 | 13 | 4 | 13 | 42 |

Del PRE=0.148, $z=0.73$, NS

Table 14

**Further 2x2 Chi-Square Analysis to Measure the
Association between GM and Adol. Attachment (AAI)**

| | <u>Grandmother AAI</u> | | |
|---------------|------------------------|------------|----------|
| | Nonautonomous | Autonomous | T |
| Nonautonomous | 23 | 9 | 32 |
| Autonomous | 6 | 4 | 10 |
| T | 29 | 13 | 42 |

$\chi^2(1) = 0.751, \text{ NS}$

Table 15

**Further 3x3 Chi-Square Analysis of the Association between
GM and Adol. Attachment without "U" Classification**

| | <u>Grandmother AAI</u> | | | |
|------------|------------------------|------------|----------|----------|
| | Detached | Autonomous | Enmeshed | T |
| Detached | 13 | 9 | 5 | 27 |
| Autonomous | 3 | 4 | 3 | 10 |
| Enmeshed | 2 | | 3 | 5 |
| T | 18 | 13 | 11 | 42 |

$\chi^2(4) = 5.28, \text{ NS}$

Table 16

Del PRE Test to Measure the Association between Adolescent Attachment (AAI) and Infant Attachment (Strange Situation)

| | <u>Adolescent AAI</u> | | | | |
|-----------|-----------------------|------------|----------|------------|-----------|
| | Detached | Autonomous | Enmeshed | Unresolved | T |
| Avoidant | 12 | | | 3 | 15 |
| Secure | 2 | 9 | 1 | 4 | 16 |
| Resistant | 1 | | 2 | | 3 |
| Disorg'd | 5 | | | 3 | 8 |
| T | 20 | 9 | 3 | 10 | 42 |

Del PRE=0.454, $z=4.22$, $p<.001$

Table 17

**Further 2x2 Analysis of Association
between Adolescent and Infant Attachment**

| | <u>Adolescent AAI</u> | | |
|----------|-----------------------|---------------|----------|
| | Autonomous | Nonautonomous | T |
| Secure | 9 | 7 | 16 |
| Insecure | 0 | 26 | 26 |
| T | 9 | 33 | 42 |

Table 18

**T-Tests for Association between
Adolescent Attachment and Object Relations**

Highest O.R. scores

| | # of Cases | Mean | SD |
|---------------|------------|------|------|
| Nonautonomous | 32 | 3.88 | 1.07 |
| Autonomous | 9 | 5.33 | 1.00 |

$t = -3.66, df = 39, p < .001$

Lowest O.R. scores

| | # of Cases | Mean | SD |
|---------------|------------|------|-----|
| Nonautonomous | 32 | 3.19 | .78 |
| Autonomous | 9 | 3.78 | .97 |

$t = -1.90, df = 39, NS$

Modal O.R. scores

| | # of Cases | Mean | SD |
|---------------|------------|------|------|
| Nonautonomous | 32 | 3.56 | 1.01 |
| Autonomous | 9 | 4.56 | 1.33 |

$t = -2.42, df = 39, p < .05$

Table 19

**T-Tests for Association between Adolescent
Object Relations and Infant Attachment**

Highest O.R. scores

| | # of Cases | Mean | SD |
|----------|------------|------|------|
| Insecure | 26 | 3.85 | 1.08 |
| Secure | 16 | 4.80 | 1.21 |

$t = -2.60, df = 39, p < .01$

Lowest O.R. scores

| | # of Cases | Mean | SD |
|----------|------------|------|-----|
| Insecure | 26 | 3.15 | .78 |
| Secure | 16 | 3.60 | .91 |

$t = -1.65, df = 39, NS$

Modal O.R. scores

| | # of Cases | Mean | SD |
|----------|------------|------|------|
| Insecure | 26 | 3.46 | .99 |
| Secure | 16 | 4.33 | 1.23 |

$t = -2.48, df = 39, p < .05$

Correlations among Grandmother Sub-scales

| | Coh | Love | Rej | Role R | Ideal | Ang | Mem | LRM |
|---------|----------------|----------------|----------------|---------------|----------------|---------------|---------------|---------------|
| Coh. | --- | .37 p<.05 | -.33 p<.05 | --- | -.63 p<.001 | -.36 p<.05 | --- | -.38 p<.01 |
| Love | .37 p<.05 | --- | -.88 p<.001 | --- | --- | -.41 p<.01 | --- | --- |
| Rej. | -.33 p<.05 | -.88 p<.001 | --- | --- | --- | .46 p<.01 | --- | --- |
| Role R. | --- | --- | --- | --- | --- | --- | -.32 p<.05 | --- |
| Ideal. | -.63 p<.001 | --- | --- | --- | --- | --- | --- | --- |
| Ang. | -.36 p<.05 | -.41 p<.01 | .46 p<.01 | --- | --- | --- | -.33 p<.05 | --- |
| Mem. | --- | --- | --- | -.32 p<.05 | --- | -.33 p<.05 | --- | --- |
| LRM | -.38 p<.01 | --- | --- | --- | --- | --- | --- | --- |

Table 21

Correlations among Adolescent Sub-scales

| | Coh | Love | Rej | Role R | Ideal | Ang | Mem | LRM |
|---------|----------------|----------------|----------------|--------|----------------|---------------|---------------|---------------|
| Coh. | --- | .78 p<.001 | -.51 p<.001 | --- | -.71 p<.001 | --- | -.36 p<.05 | -.38 p<.05 |
| Love | .78 p<.001 | --- | -.69 p<.001 | --- | -.64 p<.001 | --- | -.39 p<.01 | -.38 p<.01 |
| Rej. | -.51 p<.001 | -.69 p<.001 | --- | --- | .62 p<.001 | --- | --- | --- |
| Role R. | --- | --- | --- | --- | --- | --- | --- | --- |
| Ideal | -.71 p<.001 | -.64 p<.001 | .62 p<.001 | --- | --- | --- | .37 p<.05 | .31 p<.05 |
| Ang. | --- | --- | --- | --- | --- | --- | -.35 p<.05 | --- |
| Mem. | -.36 p<.05 | -.39 p<.01 | --- | --- | .37 p<.05 | -.35 p<.05 | --- | --- |
| LRM | -.38 p<.01 | -.38 p<.01 | --- | --- | .31 p<.05 | --- | --- | --- |

Table 22

**Correlations across Grandmother and Adolescent
AAI Sub-scales**

| | <u>Adolescents</u> | | | | | | | |
|--------|--------------------|------|-----|--------|-------|---------------|---------------|-----|
| | Coh | Love | Rej | Role R | Ideal | Ang | Mem | LRM |
| Coh. | --- | --- | --- | --- | --- | --- | --- | --- |
| Love. | --- | --- | --- | --- | --- | --- | --- | --- |
| Rej. | --- | --- | --- | --- | --- | --- | --- | --- |
| Role R | --- | --- | --- | --- | --- | --- | -.31 p<.05 | --- |
| Ideal. | --- | --- | --- | --- | --- | --- | --- | --- |
| Ang. | --- | --- | --- | --- | --- | --- | --- | --- |
| Mem. | --- | --- | --- | --- | --- | -.37 p<.05 | .37 p<.05 | --- |
| LRM | --- | --- | --- | --- | --- | --- | --- | --- |

Table 23

**Correlations among Adolescent AAI and
Infant Strange Situation Sub-scales**

| | Coh | Love | Rej | Role R | Ideal | Ang | Mem | LRM |
|--------------------------------|---------------|---------------|-----|--------|---------------|-----|-----|---------------|
| Proxim. Seeking episode5 | --- | --- | --- | --- | --- | --- | --- | -.30 p<.05 |
| Proxim. Seeking episode8 | --- | --- | --- | --- | -.36 p<.05 | --- | --- | -.39 p<.01 |
| Contact Maint. episode5 | --- | --- | --- | --- | --- | --- | --- | --- |
| Contact Maint. episode8 | --- | --- | --- | --- | -.33 p<.05 | --- | --- | --- |
| Resist.5 | --- | -.32 p<.05 | --- | --- | --- | --- | --- | --- |
| Resist.8 | -.35 p<.05 | -.35 p<.05 | --- | --- | --- | --- | --- | --- |
| Avoid.5 | --- | --- | --- | --- | --- | --- | --- | --- |
| Avoid.8 | --- | --- | --- | --- | -.34 p<.05 | --- | --- | --- |

Table 24

**Correlations among Adolescent Object Relations and
Adolescent Attachment Sub-scales**

| | Coh | Love | Rej | RoleR | Ideal | Ang | Mem | LRM |
|------|---------------|---------------|----------------|-------|---------------|--------------|----------------|-----|
| High | .52 p<.001 | .53 p<.001 | -.48 p<.001 | --- | -.34 p<.05 | --- | -.62 p<.001 | --- |
| Low | .35 p<.05 | .46 p<.01 | -.41 p<.01 | --- | --- | --- | -.49 p<.001 | --- |
| Mode | .39 p<.01 | .45 p<.01 | -.39 p<.01 | --- | --- | .33 p<.05 | -.56 p<.001 | --- |

Table 25

**Correlations among Adolescent Object Relations
and Infant Attachment Sub-scales**

| | PS5 | PS8 | CM5 | CM8 | R5 | R8 | A5 | A8 |
|------|-----|-----|-----|-----|-----|-----|-----|----------------|
| High | --- | --- | --- | --- | --- | --- | --- | -.31 p<.059 |
| Low | --- | --- | --- | --- | --- | --- | --- | --- |
| Mode | --- | --- | --- | --- | --- | --- | --- | -.30 p<.066 |

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