DIMENSIONS OF ADULT ATTACHMENT, DEFENSIVE FUNCTIONING, AND RECALLED CHILDHOOD EXPERIENCES AMONG COLLEGE STUDENTS

By

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ABSTRACT

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Relationships between dimensions of adult attachment and defense mechanisms as well as recalled experiences from childhood were explored as a means of further delineating the characteristics that are associated with the dimensions of avoidance and anxiety in adults. Receiving credit for research participation, 164 college students responded to questionnaires regarding their attitudes toward romantic relationships, behaviors related to defensive functioning, perceptions of parenting styles, and experience of severe child maltreatment. It was hypothesized that those students lower in avoidance and anxiety would recall more positive experiences with care-givers, and would exhibit more mature defenses. For the relationships between childhood environmental variables and attachment dimensions, results were generally as expected although modest in size. Results for attachment dimensions and defenses demonstrated the expected relationship between lower avoidance/anxiety and more mature defenses. In addition, use of certain immature defenses could be differentiated by their degree of engaging or distancing others.

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Introduction

The goal of this study was to examine characteristics of college undergraduates' memories of the early family environment that were hypothesized to be associated with the different types of adult attachment, as well as to identify characteristics of defensive functioning utilized among those with different attachment styles. The characteristics of the childhood familial environment examined included memories of parental warmth and parental authority style, existence and degree of conflict between parents, and occurrence of child maltreatment.

The present study attempted to identify characteristics of the early familial environment that may be associated with specific attachment patterns in young adults. If a child develops an insecure attachment style because of his or her experience with a poorly attuned caregiver, then that caregiver/infant relationship may exhibit other negative characteristics that pervade the child's family environment. Knowledge of these characteristics, and how they may be associated with specific patterns of attachment, would be useful in expanding the scope of attachment theory and understanding the active components of these negative characteristics.

Research on attachment theory has demonstrated a link between being securely attached as infants and better mental health from infancy into childhood (Main & Cassidy, 1988) with similar findings in adulthood. Those who possess an insecure attachment style are more likely to report emotional distress, physiological reactivity (Spangler & Grossman, 1993) or exhibit psychopathology (Brennan & Shaver, 1998; Fonagy et al., 1996; Kobak & Sceery, 1988; Simpson, 1990; Stalker & Davies, 1995).

The development of attachment styles is thought to be a direct result of the interactions of infants with their primary caregivers (Bowlby, 1969). This interaction may be affected by infant and parent temperament as well as other personal characteristics, but it is believed that the actual care-giving experience greatly determines the style of attachment a child will develop. A caregiver who is less attuned to infant needs, or is inconsistent in responding to those needs, is assumed to contribute to a greater likelihood of his/her child developing an insecure attachment. Bowlby suggests that the infant who is not consistently attended to learns to defensively exclude from awareness its needs for the caregiver. Much work has demonstrated this link between a poorly attuned caregiver infant bond and the development of maladaptive attachment styles (Ainsworth, Blehar, Waters, & Wall, 1978; Crittenden, 1992; Lyons-Ruth & Block, 1996).

Since the development of maladaptive attachment patterns is presumably due to the characteristics of the infant's relationship to caregiver, other familial characteristics should be associated with the different patterns of attachment. Research on adult attachment need not make the assumption that adults maintain the same attachment styles from infancy into adulthood (Griffin & Bartholomew, 1994); however, this is a point of interest and one that highlights the need to broaden the scope of work that assesses the family of origin variables in relation to adult attachment. Examination of childhood environment variables in relation to adult attachment may indicate any lasting impact they have on development into adulthood. Further, because one's attachment style to the caregiver and types of defense mechanisms are both responses to potentially unmanageable conflict, (i.e., activation of an attachment organizational strategy can in

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itself involve defensive exclusion) it seems plausible that both would develop along common pathways.

Family Environment Variables

Certain familial characteristics may be of interest in homes where infant and caregiver are not attuned. These characteristics may include existence and degree of inter-parental conflict, variations in parental warmth, parental authority style, and occurrence of abuse. This study measured these variables in relation to measures of attachment patterns and to each other.

Conflict between parents has been studied with respect to its impact on the emotional health of children who are exposed to this conflict. A recent review found that almost 80% of studies measuring marital conflict and child behavior problems found statistically significant relations between the two (Grych & Fincham, 1990). A recent large national study (N=900) found that inter-parental conflict accounted for 20% of the variance in child behavior problems (Buehler, Krishnakumar, Stone, Anthony, Pemberton, & Gerard, 1998).

Other research (Buri, 1989; Buri, Murphy, Richtsmeier & Komar, 1992) has hypothesized that it is not marital conflict, per se, that influences children's emotional health, but what the presence of marital conflict may suggest about the quality of parenting. Specifically, parents with a high degree of marital conflict are hypothesized to demonstrate less parental warmth or nurturance, and possess more authoritarian parenting styles toward their children than parents who do not experience marital conflict. This method of assessing care-giving style is in line with Baumrind's (1971) typology of parenting which suggests that authoritative care-giving, in which the parent is involved,

not domineering, and allows input from children into family issues, is associated with better adjustment in children than care-giving styles which are authoritarian or permissive. There is some support for the idea that parental qualities may determine marital conflict, care-giving style, and degree of warmth expressed toward children (Pawlak & Klein, 1997).

The impact of child abuse (sexual, physical, and neglect) has been well documented in the literature. While some research demonstrates that a majority of victims may not exhibit lasting effects of the abuse, there does appear to be a relationship between the experience of abuse and poorer mental health (Kendall-Tackett, Williams, & Finkelhor, 1993; Weaver & Clum, 1993). For example, a recent meta-analysis of 59 studies (Rind, Tromovitch, & Bauserman, 1998) using college samples revealed that students who reported a history of childhood sexual abuse were slightly less well adjusted than controls. However, the authors attributed this to poorer family environments which were confounded with child sexual abuse. Further, family environment accounted for more variance in student adjustment than did the recalled experience of childhood sexual abuse. Given that parental warmth, parenting style, conflict between parents and experiences of child abuse have been suggested to impact later view of self and emotional adjustment, it may be beneficial to assess them together in relation to adult attachment.

Defensive Processes

Defensive functioning has been associated with psychological health (Cramer, 1997; Erickson, Feldman, & Steiner, 1997; Vaillant, 1977) and psychopathology (Steiner & Feldman, 1995; Tuulio-Henrikson, Poikolainen, Aalto-Setala, & Lonnqvist, 1997). While exact definitions of specific defenses differ among theorists and empirical

assessment of defenses follows many different classification systems (Guldberg, Hoglend, & Perry, 1993), research has suggested that people who utilize more mature defense mechanisms (e.g. suppression, humor, altruism) are more likely to be emotionally healthy, whereas those who use less mature defenses (e.g. projection, acting out, hypochondriasis) are more likely to experience emotional distress and pathology (Brennan, Andrews, Morris-Yates, & Pollock, 1990; Vaillant, 1977). Specific types of defenses have been associated with specific types of disorders (Smith, Thienemann, & Steiner, 1992; Tauschke, Merskey, & Helmes, 1990), and an increased use of immature defenses such as dissociation in undergraduates has been associated with a history of child abuse (DiTomasso & Routh, 1993). Immature defenses (of expectant mothers and their partners assessed prenatally) predicted marital dissatisfaction in the first postpartum year (Ungerer, Waters, Barnett, & Dolby, 1997).

However, there is little, if any, empirical data that comprehensively examines relationships among maturity of defensive functioning, specific types of defenses, and patterns of attachment. In the present study, it was hypothesized that the characteristic types of defenses that one uses should be associated with different patterns of attachment because both develop from an early age, are both mostly out of conscious control of the user, are determined in part with the conflicts the infant, child, and adult face, and are ways of managing interpersonal and intrapersonal conflict. For example, while the dismissing child may not consciously disavow the importance of relationships with others to protect a fragile ego, this could be done automatically so that the ego is unaware of a need for intimate contact with others. Similarly, defenses, theoretically, are utilized to protect the ego from the awareness of intrapsychic conflict (Freud, 1946).

Attachment in Adults

Some attachment theory and research, as applied to adults, suggests that current romantic relationships, and relationships to parents, usually reflect the same attachment tendencies that the infant first displayed (Griffin & Bartholomew, 1994). Other work has demonstrated that this child's attachment style remains relatively stable into mid-childhood (Main & Cassidy, 1988; Main, Kaplan, & Cassidy, 1985). Unfortunately longitudinal research does not yet exist to confirm the hypothesis that these same children will maintain their same attachment style into adulthood.

Recently, research on adult attachment has focused on alternate three category and four category models that parallel similar measurement systems for children as well as dimensions that underlie these categories. The four-fold categorical model has the advantage that each category may be mapped onto the two dimensions of approach toward others and anxiety over abandonment. The two dimensions, which underlie the four category model, concern the view of self and view of others (Bartholomew & Horowitz, 1991). Alternatively, they may be viewed along the dimensions of anxiety concerning abandonment by others and style of interacting with others, through approach or avoidance. In adults, the four-category model is conceptualized as the secure attachment style and three insecure styles (dismissing, preoccupied, and fearful). The secure attachment style is demonstrated in people who approach relationships with positive expectations about the value of being in a close relationship. They expect that they can trust their partner and can gain enjoyment and fulfillment from relationships. People are seen as caring and trustworthy. That is, the securely attached person holds a positive view of self and others, and trusts relationships rather than fear abandonment and

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approach rather than avoid intimacy (Simpson, 1990). The preoccupied style is characterized by the adult who is described as confused, anxious, clinging, dependent, jealous and highly expressive of emotions (Alexander, 1992). They are preoccupied with relationships, always wary of abandonment and concerned with the degree that others are meeting their relationship needs. In the alternative two-dimensional approaches to attachment, they possess high anxiety with regard to abandonment and low avoidance (or high approach) of others; alternatively they possess a positive view of others and a negative view of self (Griffin & Bartholomew, 1994). This drives their approach of others as well as their eventual dissatisfaction with relationships. They see others as potentially satisfying, but not dependable. The dismissing avoidant relationship pattern appears in people who do not value, and avoid, emotional closeness. They tend to idealize their parents but cannot recall much of their childhood experience. When viewing the adult dismissing attachment style along the two dimensional approaches, the dismissing is seen as possessing a positive view of self and negative view of others. That is, the dismissing adult does not look to others as a source of emotional security. Similarly, the dismissing is seen as possessing a low degree of anxiety over abandonment, and a high avoidance coping behavior.

The fearful adult is characterized as unassertive and socially inhibited and while possessing no systematic strategy to attain attachment goals, exhibits a combination of preoccupied and avoidant behaviors (Griffin & Bartholomew, 1994). Along the two dimensional approaches to attachment, they possess a negative view of self as worthy of others' support and thus high anxiety regarding abandonment, and a negative view of others' ability to provide support resulting in avoidance of others. Some research on adult

attachment that uses the three-category system may demonstrate more illuminating results when viewed in four categories with their dimensional advantage.

Similarly, as performed in this study, by statistically assessing attachment dimensions, continuous information is maintained that would be lost when lumping participants into categories. Further, analysis of the dimensions of avoidance and anxiety may provide more information as to the specific internal working models and behaviors in relationships that researchers allude to when they refer to styles of attachment.

Defenses and Attachment

With regard to the relationship between defenses and attachment styles, two questions need to be addressed: do the different patterns of attachment exhibit differential maturity and use of specific defenses, and do defenses enact or protect against the attachment model of self and other? Vaillant's (1993) categorization of defenses classifies them from pathological to adaptive, via the categories Psychotic, Immature, Neurotic, and Mature. Vaillant distinguishes Psychotic defenses as those which deal with distortions of external reality, Immature defenses focus on the distortion of relationships with others and Neurotic defenses distort internal perception. Mature defenses don't distort or cutoff the source of conflict as much as they channel the source of conflict into positive outcomes. Therefore Immature defenses, focusing on the distortion of relationships, are experienced negatively by others. In the present study it was hypothesized that a determining factor in the level of defense use is the view of self. A negative view of self and attendant high fear of abandonment promotes the use of defenses that engage others in the user's psychic conflict, the Immature defenses. A positive view of self and low fear of abandonment is reflected in the use of defenses that

do not negatively impact others. Similarly, it was hypothesized that whether defenses enact or protect against the user's attachment model of self and other is dependent on one's view of self. A negative view of self must be defended against, however, a positive view of self need only defenses that consciously maintain that view.

The question that follows is: What impact does one's view of others have on defense utilization? It was hypothesized, in the present study, that the attachment model of others is characterized as positive if others are seen as capable of providing emotional support and negative if they are not. Thus one's mode of approaching or avoiding others is reflected in defenses that promote contact and recognition by others versus those that promote distance or do not involve others. This is separate from the distinction that Immature defenses punish others. Defenses of any maturity can approach or distance other people.

Parental Nurturance and Dimensions of Adult Attachment

The experience of frequent nurturing interactions with caregivers is expected to produce the sense that approaching others results in emotional soothing. The caregiver who adequately attends to infant's attachment needs is expected to have a positive view of relating toward their children and takes an active encouraging role in raising their children (Alexander, 1992). Parental nurturance, or warmth expressed towards children, has been found to be related to elementary school aged children's self-esteem ($R^2 > 50\%$) and to a lesser degree (but still large) to high school students and undergraduates (n=365) ($R^2 < 40\%$) (Buri et al., 1992). Parents who do not attend to their infants' emotional crises should exhibit other characteristics that dismiss emotional experiences as they parent their children. Parental responses which reject children's bids for emotional

comfort are consistent with the experience of low parental warmth. This lack of succor from others would promote an internal working model that others are not emotionally helpful or reliable. Therefore, parental nurturance was expected to correlate negatively with avoidance, and no specific hypothesis is made regarding abandonment anxiety.

Viewing this from the categorical perspective suggests that those styles high in avoidance, dismissings and fearfuls experienced less parental warmth than preoccupieds and secures. Since the preoccupied is concerned with receiving adequate warmth from intimate others, it would seem reasonable that they experienced more warmth from parents, than their dismissing and fearful counterparts, albeit inconsistently. While preoccupied parents are inconsistently psychologically unavailable, they at times would be expected to have expressed more warmth than dismissing parents who are more consistent in the rejection and denial of parental support. Parents of the preoccupied would have to express some amount of warmth to their child in order for that child to expect, albeit unreliably, emotional comfort in and from others.

Parenting Style and Dimensions of Adult Attachment

Authoritative parenting was hypothesized to correlate negatively with both avoidance and anxiety. The firm but fair parental authority produces confidence in the parent's care-giving, and the verbal give and take allowing for the child's input fosters a positive model of self. Thus, it may be most related to the development of a secure adult instead of the insecure styles. Buri (1989) demonstrated that both care-giving style and parental nurturance (measured via student self-report) were related to self-esteem in a sample of 128 undergraduates. Authoritative care-giving was positively related to self-esteem, while authoritarian care-giving was inversely related to undergraduates' self-

esteem. However, in regression analyses on a sample of 64 undergraduates, Buri, Kirchner, and Walsh (1987) demonstrated that perceptions of parental nurturance may in fact be more predictive of self-esteem than perceptions of care-giving, or parental authority, style.

Authoritarian parenting was hypothesized to be positively correlated with avoidance and negatively correlated with anxiety. Caregivers of avoidantly attached children have been described as controlling and insensitively intrusive during the child's free play (Lyons-Ruth & Block, 1996). This is consistent with a more authoritarian parenting approach, which involves a high level of control and the negation of input from children. As defined by Baumrind (1971), authoritarian parents value obedience to set standards of conduct, do not believe in verbal give and take with children, and dismiss the impact of their rules on children's emotional experience. Just as the authoritarian parent dismisses the concerns of their child's input to parenting matters, the dismissing adult is most likely to have suppressed anxiety regarding conflicts with their parent and learned to avoid their rule enforcing parent. Authoritarian parenting then may be more likely to foster a dismissing attachment than other categorical styles.

Permissive parenting was expected to be positively correlated with abandonment anxiety. It is suggested that adults who fear that others may leave them, experienced as children, fear at not knowing if their parent was a real protector and caregiver, given the lack of direction and instruction offered by the permissive parent. The permissive style is a less controlling care-giving style than either authoritative or authoritarian care-giving. While permissive parents do not exert firm control over their children, Baumrind (1971) observed that these parents do experience anger over the loss of parental control.

Permissive parents demonstrate warmth toward their children but operate under the assumption that they are not responsible for actively instructing and guiding their child (Baumrind). This may leave the child wishing for such guidance and care. Whether the child of a permissive parent learns to approach or avoid others may be determined by other variables such as amount of parental warmth. A very highly nurturant permissive parent may produce a preoccupied adult, whereas, if nurturance is low, then the child may tend toward avoiding the parent, producing a fearful adult.

Inter-parental Conflict and Dimensions of Adult Attachment

Inter-parental conflict in general was expected to be positively correlated with both avoidance and anxiety. If the mother or father is able to successfully attend to infant needs, then they are more apt to be able to act similarly in their marriage. Some research has suggested that securely attached parents tend to select securely attached mates (Crittenden, Partridge, & Claussen, 1991). Meanwhile, they may be more likely to be married to someone who is also successful at managing inter-parental conflict. However, recent research by Pawlak and Klein (1997) on 122 college students suggests that parenting style and existence or absence of parental warmth may in fact be more central to a child's later mental health than presence of inter-parental conflict. The various components of inter-parental conflict, however, are expected to differentially influence the dimensions of avoidance and anxiety. The frequency and intensity of the conflict was expected to produce a tendency of avoidance of others, first parents. Because the child is in a rather helpless position in face of conflict between parents, a high degree of parental conflict is thought to produce an avoidance strategy in the child, or categorically, the dismissing or fearful adults.

Conflict between parents that results in child's self-blame was expected to produce abandonment anxiety. Any anger the child feels when parents fight, is put back on the self, resulting in a model of the bad self, and maintaining a positive view of others. Therefore, self blame should be positively correlated with anxiety.

Inter-parental conflict that produces threat to the child was expected to result in both increased avoidance and anxiety. The child views the self as bad, thus justifying the threat. Among a group of 215 undergraduates, assessed by Grych, Seid, and Fincham's (1992) Children's Perceptions of Inter-parental Conflict scale (which identifies three factors Conflict Properties, Perceived Threat, and Self-Blame that have demonstrated differential impact in predicting behavioral adjustment problems), threat was found to be related to self-esteem, competence, and identity integration whereas the properties of conflict were only related to competence (Bickham & Fiese, 1997). Thus, threat to the self seems to have a negative impact on one's model of self. Bowlby (1973) saw parental quarrels as episodes that imply the threat of abandonment by a caretaker as a possible result of quarrels and that this contributes to anxious attachments. Further, if the child feels threatened as a result of conflict between parents, they are unlikely to view parents as emotionally supportive during these times. Rather, the child would tend to avoid parents.

Child Maltreatment and Dimensions of Adult Attachment

Different forms of extreme child maltreatment can have differential impact on the child's sense of self and others. Physical abuse was hypothesized to be positively correlated with avoidance and negatively correlated with anxiety. Just as with the authoritarian parenting style, the child in this home learns to avoid the physical abuser

and dismisses the importance of their own attachment needs toward this parent. In the home of the dismissingly attached child, conflict goes ignored but unresolved. However, any transgressions of these rules are more likely to be punished than in other homes. Therefore dismissing young adults are expected to be more likely to recall having experienced physical maltreatment than neglect or sexual abuse. Gauthier, Stollak, Messé, and Aronoff (1996) reported an association between college students who recalled experiencing physical abuse as children and dismissing attachments.

Neglect was expected to produce the opposite pattern, with high anxiety and low avoidance. The child is left wanting more from others and seeks out attachment needs from the parent who does not demonstrate enough interest in the child. The neglected child's model of the self is negative; they justify the lack of parental attention by viewing the self as unworthy, allowing their parent to remain good. Neglect is more consistent with a psychologically unavailable, but not overtly rejecting parent, preoccupied with their own attachment issues, than direct physical or sexual abuse. The inconsistent subtlety of psychological unavailability activates the preoccupied's concern with wanting caregiver's love but alternately hating it or experiencing it as unpredictable. In a sample of 512 college students, Gauthier et al. (1996) reported more severe psychological problems and resistant (preoccupied) attachments among students who recalled occurrence of neglect than those students who reported experiencing physical abuse as children. In parallel stepwise regression they found neglect ($F=12.96$, $p<.001$, R^2 change $= .14$) to be a stronger predictor than physical abuse ($F = 3.96$, $p<.05$, R^2 change $= .02$) of resistant (anxious-ambivalent or preoccupied) attachment. However, neglect ($F=11.56$, $p<.001$, R^2 change $= .15$) also predicted avoidant attachment more strongly than physical

abuse ($F=6.76$, $p<.01$, R^2 change = .03). Based on these results it appears that neglect was as likely to predict avoidant attachment as it was resistant attachment. It may be useful to view this data using the dimensions of avoidance and anxiety, which parallels the four category model of adult attachment, in order to further differentiate the common characteristics demonstrated in this sample between avoidant and resistant attachments.

While these two attachment styles are regarded as representing opposing strategies for relating to important others (Fraley & Shaver, 1997), the overlap seen in this sample may be illuminated when those subjects who may be more appropriately categorized as fearful are removed from the two other insecure attachment groups. The three-category attachment model may map onto the attachment dimensions or the four-category model with some rotation involved (Fuendeling, 1996; Griffin & Bartholomew, 1994) and therefore may account for some findings where avoidants and preoccupieds show some overlap, which in the dimensional model may be better accounted for by those high in both avoidance and anxiety. The addition of sexual abuse as a predictor may also further differentiate the characteristics of child maltreatment that may impact attachment styles into adulthood.

Sexual abuse, however, is such an invasive threat to the child, that it was expected to result in both avoidance and anxiety. This child seeks to avoid the offender, and usually cannot resulting in a profound sense of helplessness. But this child's model of self should also be negative. As the object of both hatred and attention, the sexually abused child may be left very unsure about their own worthiness, or merely valued as an object. It is hypothesized that the fearful child, higher in both avoidance and anxiety, in is more likely to have experienced childhood sexual abuse rather than other forms of

child abuse. This form of child abuse is potentially most damaging to the view of self as the conflicting signals may be sent to the child during abuse, that of simultaneous approval and hatred or indifference. Stalker and Davies (1995) measured attachment styles among a group of 40 inpatient women who reported experiencing childhood sexual abuse. When looking at their attachment patterns in the original three category model (secure, avoidant, and preoccupied), 68% of these women demonstrated a preoccupied attachment style; when the four category model (secure, avoidant, preoccupied, and unresolved (fearful)) was assessed 80% of the women were classified as unresolved (fearful) with respect to trauma or attachment. This highlights not only the high likelihood of children who experience sexual abuse to exhibit a fearful attachment, but also the commonalties between the preoccupied and fearful attachment styles. However, this sample was comprised of women with Borderline Personality Disorder and therefore it is quite possible that women who were sexually abused but possessed either an avoidant or secure attachment pattern would be less likely to be found in this psychiatric inpatient sample.

Dimensions of Adult Attachment and Defensive Styles

Those college students lower in avoidance and anxiety were expected to utilize the most mature defense mechanisms. Their positive model of self and others allows for defenses that protect the self in adaptive ways. Thus, avoidance and anxiety should be negatively correlated with the use of mature defenses. These defenses can be considered more adaptive than pathological and turn the user's internal conflict into benefit for user and observer alike (Vaillant, 1993). Examples of mature defenses in Vaillant's classification include suppression, humor, anticipation, and sublimation. For example,

one who uses suppression is aware of an impulse that causes conflict but postpones acting to gratify the impulse, choosing to ignore it while maintaining awareness of this conflict. From the user's perspective the attachment model of positive self and other are met; likewise from the perspective of external reality, the same outcome is true. It was hypothesized that the positive view of self vitiates the need to punish others; there is no fear of abandonment, thus no need to reproach others. Further, it was hypothesized that the positive view of others allows the use of defenses that engage with and benefit others. The user's humor is appreciated by both the user and observer.

Neurotic defenses were expected to be correlated positively with avoidance and negatively with abandonment anxiety. These college students' positive view of self vitiates the need for more immature defenses that relate to one's relationships with others. That is, their ego-syntonic positive view of self and low fear of abandonment eliminates the need to engage or punish others in their psychic struggle. Their defenses should be more related to maintaining their dismissal of the importance of others, and restate their own achievement oriented, non-affective self view (Mikulincer, 1998). Fraley and Shaver (1997) demonstrated that dismissing avoidant college students, when asked to suppress thoughts of their romantic partner leaving them for someone else, were successfully able to deactivate their attachment system as compared to preoccupied students. Neurotic defenses deal more with internal conflict than with significant others and therefore do not negatively affect others who observe them such as undoing, idealization, and reaction formation. This is consistent with the fourfold typology of attachment, where the dismissing avoidant style has a positive view of self and therefore need not distort self perception, but removes the feeling of needing others, who cannot be

depended upon. Adults possessing dismissing attachments are described as being unable to recall many specific details from childhood yet they idealize their parents (Alexander, 1992). Further, the very renunciation of the importance of support from others by the dismissing is an example of reaction formation. It is the transformation from "I need others' support" to "I don't need others' support." While a positive view of self and low fear of abandonment free the dismissing from utilizing defenses which punish others, their negative view of others' ability to provide support determines the withdrawing quality of these defenses. Others are not hurt by these defenses, and these defenses do not encourage others to engage the user. From the dismissing user's point of view, these defenses maintain the attachment model of self and other. While these students, possessing a dismissing attachment style, have made an early compromise that others are not valued, and the self is positive, their conflict is essentially resolved when compared to the other insecure styles. They do not need to seek out others, only maintain their defensively positive self view.

Those college students higher in abandonment anxiety were expected to utilize immature defenses. These defenses are relationship oriented. It was hypothesized that this high anxiety over abandonment, in part, is demonstrated by defenses which involve others. In Vaillant's (1993) categorization of defenses the category of Immature defenses focuses on the distortion of relationships with others. Because these students possess a negative self-view, they experience greater emotional stress in relationships requiring less mature defensive styles. Given that the core self is negative, they must use defenses that protect this damaged self in relation to others. The preoccupied adult must seek care of their negative self in the sustenance of others, thus using immature defenses that approach

or engage others in their conflict. This conflict, over others' hold on the preoccupied self, engages those with whom the user is at fear of losing. An Immature defense's effect may annoy or punish the other but it otherwise engages others in the user's psychic conflict. For example Lopez, Fuendeling, Thomas, and Sagula (1997) found that preoccupied and fearful college students reported higher levels of splitting than did avoidants and secures. Therefore, immature defenses that approach others such as acting out, dissociation, and somatization, were expected to be positively correlated with anxiety and negatively correlated with avoidance. For example, in acting out the user feels omnipotent and others devalued, yet in effect this is self destructive behavior generalized toward anyone or thing perceived to be of value and therefore in need of destroying. The true object of hatred usually goes unpunished (Vaillant, 1993). These specific immature defenses promote the active intervention of others and, as immature defenses, others are affected negatively by them. Someone who is acting out is often punished or otherwise encouraged to change their behavior. Other's attention and sympathy toward but rejected by persons who are frequently and intensely concerned with physical symptoms are an integral part of the defense's enactment. While the effect in objective reality punishes both self and other, from the user's point of view, the self is seen as good, defending against unacceptable feelings of abandonment and the attachment model of self as bad.

Conversely, the fearful adult must protect the damaged self from the rejection of others, thereby utilizing immature defenses that isolate the self from others. Therefore, the immature defenses that isolate the self from others, such as fantasy, passive aggression, and projection, were expected to be positively correlated with both avoidance and anxiety. Fearful young adults, designated by a negative view of self and attendant

high fear of abandonment, are more likely than dismissing and secure attachments to exhibit immature defenses, which in part express resentment regarding feelings of abandonment. Immature defenses negatively affect others, and in so doing, they actualize the user's resentment over not receiving support from others. These defenses include fantasy, passive aggression, and projection. For example, in passive aggression, the user denies any significance to the action other than as a joke, even though both user and the target are punished. In fantasy, the user withdraws bringing the world inward and enacts plays of omnipotence. Again, however, the people co-opted into this fantasy feel the absence of the user. While from the user's perspective these defenses defend against an attachment model of self as bad, their model of others as incapable of providing emotional support determines the withdrawing quality of these specific immature defenses. Users of projection avoid their imagined persecutors.

Hypotheses

Attachment styles, characteristics of the familial environment, and defensive functioning have all demonstrated relationships with emotional health and psychopathology. However, these three areas require more exploration in regard to their relationships to each other in order to expand understanding of the characteristics of the specific dimensions of attachment. Assessing these constructs at the point of young adulthood should potentially indicate which of the previous familial experiences demonstrate a lasting influence on attachment dimensions and defensive functioning.

Parental nurturance predicting adult attachment dimensions.

Hypothesis 1:

Parental nurturance would be negatively correlated with avoidance.

Parenting style predicting adult attachment dimensions.

Hypothesis 2a:

Authoritative parenting would be negatively correlated with avoidance and anxiety.

Hypothesis 2b:

Authoritarian parenting would be positively correlated with avoidance and negatively correlated with anxiety.

Hypothesis 2c:

Permissive parenting would be positively correlated with anxiety.

Inter-parental conflict predicting adult attachment dimensions.

Hypothesis 3a:

Conflict properties such as frequency and intensity would be positively correlated with avoidance.

Hypothesis 3b:

Conflict that produces self-blame would be positively correlated with anxiety.

Hypothesis 3c:

Conflict that produces threat to the self would be positively correlated with avoidance and anxiety.

Child maltreatment predicting adult attachment dimensions.

Hypothesis 4a:

Physical abuse would be positively correlated with avoidance and negatively correlated with anxiety.

Hypothesis 4b:

Neglect would be negatively correlated with avoidance and positively correlated with anxiety.

Hypothesis 4c:

Sexual abuse would be positively correlated with avoidance and anxiety.

Adult attachment dimensions predicting defensive styles.

Hypothesis 5a:

Mature defenses would be negatively correlated with avoidance and anxiety.

Hypothesis 5b:

Neurotic defenses would be positively correlated with avoidance and negatively correlated with anxiety.

Hypothesis 5c:

Immature defenses would be positively correlated with anxiety.

Hypothesis 5d:

The Immature defenses acting out, dissociation, and somatization would be positively correlated with anxiety and negatively correlated with avoidance.

Hypothesis 5e:

The Immature defenses fantasy, passive aggression, and projection would be positively correlated with avoidance and anxiety.

While maturity level of defenses is thought to increase with age, most of these young adults may demonstrate more mature or neurotic defenses than immature defenses. However, the above hypotheses related to defense do not address which levels of defense will be utilized most. Rather they address, within a given defense maturity level, which students, based on their attachment dimensions, will utilize that level's defenses the most.

Similarly, while differences are expected between mother's and father's assessed parenting characteristics and this may impact participants attachment styles or defensive functioning, no specific hypotheses were made with regard to these possible differences.

Method

Participants

Participants were 164 undergraduates at Michigan State University who completed study questionnaires in order to fulfill their research participation requirement. There were 39 males and 125 females. 60 percent of participants were either 19 or 20 years old. 84.1% of participants were Caucasian, 6.7% African-American, 2.4% were Hispanic/Latino, 3.7% Asian-American, and the final 1.8% classified themselves among other ethnicities. 70.1% of participants reported that their parents were married to each other, and the remaining participants' parents were either divorced or separated.

Measures

Parental nurturance.

Parental nurturance or warmth was assessed using the Parental Nurturance Scale (PNS) (Buri, Louiselle, Misukanis, & Mueller, 1988). The PNS is a 24 item Likert type (1 = Strongly Disagree, 5 = Strongly Agree) self-report scale that administered to subjects who evaluate the warmth of either parent. Sample questions include "My mother expressed her warmth and affection for me" measuring warmth, and "My mother does not understand me" assessing lack of warmth or empathy. Coefficient alpha, on 156 college students were .95 and .93 for mother's nurturance and father's nurturance respectively (Buri, 1989). Two week test-retest reliabilities on 85 college students were .95 and .94 respectively (Buri, 1989). Internal consistency for the current sample was alpha = .97. Scores were obtained by averaging all items. A higher score indicates subject report of more parental nurturance. See Appendix A for a copy of this measure.

Parental authority.

Parental care-giving style was measured using the Parental Authority Questionnaire (PAQ) (Buri, 1991). The PAQ is a 30 item Likert scale (1 = Strongly Disagree, 5 = Strongly Agree) self-report measure that can be answered with regard to mother's or father's patterns of parenting. Buri developed the PAQ to identify care-giving styles based on Baumrind's three main parenting styles of authoritative, authoritarian, and permissive parenting. Each statement represents a characteristic of one of the three authority styles (e.g. authoritative: "As I was growing up, my mother gave me clear direction for my behaviors and activities, but she was also understanding when I disagreed with her"). The PAQ was norm tested on 108 high school juniors and seniors and 171 college students. Coefficient alphas, on 185 college students ranged from .74 to .87. Test-retest reliability on 61 undergraduates ranged from .77 to .92 (Buri, 1991). The Internal Consistency for the current sample subscales were alpha = .92, .88, and .80. Each parenting style is created by averaging 10 items. Higher scores indicate parenting that was perceived as being more like that authority style. See Appendix B for a copy of this measure.

Childhood maltreatment.

Self reported recall of instances of Child Maltreatment was measured using the Childhood Trauma Questionnaire (CTQ) (Bernstein et al., 1993). The CTQ is a 70 item Likert type (1 = Never True, 5 = Often True) self-report measure that inquires about instances of emotional abuse, emotional neglect, sexual abuse, physical abuse, and physical neglect during childhood and adolescence. Sample questions include: "When I was growing up, people in my family hit me so hard that it left bruises and marks," and

"When I was growing up, Someone molested me." Coefficient alphas ranged from .79 to .95 (N=286) and two week test-retest reliabilities (N = 40) ranged from .80 to .88 in a sample of substance dependent adult psychiatric patients. Internal consistencies for the current sample were alpha = .90, .92, .91, .85, and .78. Scores for each subscale were obtained by averaging relevant items. Higher scores indicate recalling more instances of childhood maltreatment. See Appendix C for a copy of this measure.

Inter-parental conflict.

Inter-parental Conflict was measured using Grych et al.'s (1992) Children's Perceptions of Inter-parental Conflict scale (CPIC). This 49 item Likert scale (1 = True, 3 = False) self-report instrument was developed to identify the salient aspects of inter-parental conflict that contribute to the adverse impacts of conflict between parents on children, beyond merely existence and frequency of conflict. Three factors were identified from the ten subscales: conflict properties (including frequency, intensity and resolution), perceived threat to the child, and degree of self blame felt by the child regarding the conflict. Example questions include "They may not think I know it, but my parents argue or disagree a lot" (assessing frequency), and "I get scared when my parents argue" (assessing perceived threat). The CPIC was validated for use by young adults (Bickham & Fiese, 1997) in a sample using 215 college students. Coefficient alphas for the three factors in the college sample ranged from .85 to .95. Internal consistencies for the current sample were alpha = .95, .86, and .82. Scores for each scale were obtained by averaging relevant items. Higher scores indicate more instances of self-blame, reporting experiences of feeling threatened more, or report of more frequent or intense conflict between parents. See Appendix D for a copy of this measure.

Adult attachment.

Adult Attachment was measured using the Relationship Questionnaire (RQ; Bartholomew & Horowitz, 1991). The RQ is a modification of Hazan and Shaver's (1987) prototype measure and produces a categorical attachment classification based on subject's response to four paragraphs that describe the four attachment styles. For example the paragraph for the dismissing prototype is "I am comfortable without close relationships. It is very important for me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me." Attachment category was determined exactly by participant's choice, as this is a forced choice measure where respondents can only select one category that best represents them. The RQ was used to get an approximate measure of number of respondents for each attachment category, in order to determine the necessary sample size for this study. See Appendix E for a copy of this measure.

The Experiences in Close Relationships scale (ECR; Brennan, Clark, & Shaver, 1998) is a 36 item Likert type (1 = Disagree Strongly, 5 = Agree Strongly) scale that maps responses onto the adult attachment dimensions of avoidance and abandonment anxiety. Coefficient alphas from a sample of 1,086 undergraduates were .94 and .91. The internal consistencies for the current sample were alpha = .94 and .91. Scale scores were created by averaging relevant items. Higher scores on each scale indicate more avoidance or more abandonment anxiety. See Appendix F for a copy of this measure.

Defensive processes.

Defensive functioning was measured using the Defense Style Questionnaire (DSQ; Bond, Gardner, Christian, & Sigal, 1983; Andrews, Singh, & Bond, 1993). The

DSQ is a 40 item Likert scale (1 = Strongly Disagree, 5 = Strongly Agree) self report measure that presents items which represent examples of the utilization of different types of psychoanalytic defenses. The DSQ produces 3 factors based on maturity level of defenses represented by the items in each factor (Immature, Neurotic, & Mature). Sample items include: "I get satisfaction from helping others and if this were taken away from me, I would get depressed" representing pseudo-altruism and "People tend to mistreat me" representing projection. Coefficient alphas for the three factors of the 40 item DSQ were .68, .58, and .80, based on data from 388 normal controls, 225 anxiety patients and 32 child abusing parents. Four-week test-retest reliabilities from 89 normal controls were .75, .78 and .85. The internal consistencies for the current sample were alpha = .55, .49, and .78. The authors of the 40 item version (Andrews et al., 1993) also reported alphas lower than desired, and they explained this as resulting from more heterogeneous constructs than typical of many measures in personality research. Scales were computed by averaging relevant items. Higher scores on the scales indicate more usage of mature, neurotic, or immature defenses. See Appendix G for a copy of this measure.

Procedure

The battery of questionnaires was administered to 164 participants between December 1998 and April 1999. Prior to the start of testing, participants were asked to read the consent statement, while the experimenter read the statement aloud. Participants indicated their consent by signing the consent form and turning it in to the experimenter, prior to the administration of any other materials. Participants finished all measures in approximately 80 minutes. Participants recorded their answers on Scantrons sheets.

Reminders were placed on the measures to reduce errors when filling out the Scantrons. The experimenter was present at all administrations to ensure standardization of administration and answer questions. No negative effects on participants were observed or reported from the completion of this battery.

As a part of this administration, participants also wrote stories in response to two Thematic Apperception Test (TAT) cards, before completing the rest of the questionnaires, and also answered questions from the Weinberger Adjustment Inventory (WAI; Weinberger, 1989). Neither of these instruments was included in the hypotheses for this study.

Results

An alpha level of .05 was used for all statistical tests. Although many analyses were performed, a more stringent criterion such as alpha = .01 was not used due to the increased likelihood of Type II error that would result. Power analyses indicated that a sample size of 85 was necessary to find statistically significant one-tailed correlations at alpha = .05, with power at .80 and a medium effect size.

Demographics

The potential impact of the demographic variables gender, age, and ethnicity (see Table 1) on hypotheses was assessed by two-tailed correlations with attachment dimensions and defense maturity variables (see Table 2). When a specific demographic variable is significantly correlated with both a dependent and independent variable, then that demographic variable needs to be partialled out of correlational analyses involving the independent and dependent variables. The nominal ethnicity variable was coded into dichotomous variables representing Asian-American, African-American, Caucasian, Hispanic/Latino, and other (0=no, 1=yes) for this analysis. The correlation between age and avoidance ($r = -.16$, $p < .05$) and the correlation between age and anxiety ($r = -.25$, $p < .05$) were both statistically significant such that older participants were less anxious and less avoidant. The correlations between age and the defense styles, mature ($r = .21$, $p < .01$), neurotic ($r = -.18$, $p < .05$), and immature ($r = -.25$, $p < .01$) indicated that older college students used statistically significantly more mature defenses and fewer neurotic and immature defenses. The correlation between gender and anxiety ($r = .21$, $p < .05$) was statistically significant such that males were less anxious. Hispanic/Latino ($r = -.16$, $p < .05$) ethnicity had a statistically significant correlation with neurotic defenses indicating

that they endorsed using fewer neurotic defenses.

Based on the statistically significant correlations above, two-tailed correlations were then performed on the childhood environment variables with demographic variables (see Table 3). Gender had a statistically significant correlation with physical neglect (r = -.20, $p < .05$) suggesting that male students recalled more experiences of physical neglect. Age had statistically significant correlations with authoritarian parenting (r = -.21, $p <$ .05) and self-blame regarding inter-parental conflict (r = -.21, $p < .05$) suggesting that younger students recalled parenting as more authoritarian and experienced more self-blame when their parents argued. Therefore, analyses specific to these variables controlled for the appropriate demographic variable as detailed below.

Because the demographic variables for gender and ethnicity are dichotomous and are not evenly distributed, correlations with these types of variables may underestimate any potential relationships with other variables. Therefore, multivariate analyses of variance (MANOVA) were performed to assess the overall relationship of gender and ethnicity (separately) on first, childhood environmental variables, and second, adult attachment and defensive maturity. For this analysis, subject's ethnicity was determined by majority group or minority group membership to more evenly distribute this variable. That is, the ethnicity variable used in the MANOVA's utilized the Caucasian dichotomous variable thereby comparing minority group membership versus majority group membership.

A MANOVA was performed with parental nurturance, authoritative parenting, authoritarian parenting, permissive parenting, conflict properties, self-blame, threat to the self, physical abuse, physical neglect, emotional abuse, emotional neglect, and sexual

abuse as the dependent variables, and Caucasian (majority versus minority group) as the independent variable. The overall F was not significant ($F(12, 147) = 0.76$, ns). Univariate F's were also non-significant (See Table 4). Results were consistent with the above correlations.

A MANOVA was performed with avoidance, anxiety, mature defenses, neurotic defenses, and immature defenses as the dependent variables, and Caucasian (majority versus minority group) as the independent variable. The overall F was not significant ($F(5, 158) = 1.38$, ns). Univariate F's were also non-significant (See Table 5). Results suggest that overall being a minority group member was not related to adult attachment or maturity of endorsed defenses.

A MANOVA was performed with parental nurturance, authoritative parenting, authoritarian parenting, permissive parenting, conflict properties, self-blame, threat to the self, physical abuse, physical neglect, emotional abuse, emotional neglect, and sexual abuse as the dependent variables, and gender as the independent variable. The overall F was significant ($F(12, 147) = 1.93$, $p < .05$). The univariate F for physical neglect was significant (See Table 6) suggesting that male subjects reported more experiences of physical neglect. All other univariate F's were non-significant. Results were consistent with the above correlations.

A MANOVA was performed with avoidance, anxiety, mature defenses, neurotic defenses, and immature defenses as the dependent variables, and gender as the independent variable. The overall F was significant ($F(5, 158) = 3.36$, $p < .01$). The univariate F for anxiety was significant ($F(1,162) = 7.26$, $p < .01$) suggesting that female college students endorsed more abandonment anxiety. All other univariate F's were non-

significant (See Table 7). Results were consistent with the above correlations.

While dimensional attachment ratings are utilized in analyses below because of their improved statistical clarity when compared to categorical attachment classifications, subjects were asked to rate themselves by categorical attachment classifications in order to determine the necessary sample size. In this study, 39.6% (n = 65) participants endorsed a secure attachment style, 8.5% (n = 14) endorsed a dismissing attachment style, 22.0% (n = 36) endorsed a preoccupied attachment style, and 29.9% (n = 49) endorsed a fearful attachment style.

Main Analyses

Analyses related to specific hypotheses were performed using one-tailed Pearson correlations. Analyses for related variables without specific hypotheses were performed using Pearson two-tailed correlations. Often, the dimensional approach to understanding adult attachment assumes orthogonal dimensions but this is not always the case in actual research on specific sample populations. The correlation between avoidance and anxiety in this study was statistically significant (r = .27, p < .01); therefore, analyses involving one attachment dimension will control for this significant correlation with the other attachment dimension. Descriptive statistics for variables related to hypotheses are provided in Table 8.

Childhood Environment and Adult Attachment

Parental nurturance.

A one-tailed partial correlation was performed to test the hypothesis that recall of parental nurturance was negatively correlated with the adult attachment dimension of avoidance. This correlation was statistically significant (r = -.26, p < .01) when

controlling for the effect of anxiety suggesting that students who recalled more parental nurturance were less avoidant in adult romantic relationships. Although there was no specific hypothesis regarding parental nurturance and the adult attachment dimension of anxiety, this two-tailed partial correlation was not statistically significant (r = -.11, ns) when controlling for the effect of avoidance (see Table 9).

Parenting style.

One-tailed partial correlations were performed to test the hypothesis that parenting recalled as authoritative would be negatively correlated with avoidance and also with anxiety. The correlations with avoidance (r = -.19, p < .01), while controlling for anxiety, and the correlation with anxiety (r = -.16, p < .05), while controlling for avoidance, were both statistically significant. Results suggest that students who recalled more authoritative parenting were less avoidant and had less abandonment anxiety (see Table 9).

One-tailed partial correlations were performed to test the hypothesis that parenting recalled as authoritarian would be positively correlated with avoidance and anxiety. The partial correlation with avoidance (r = .01, ns), controlling for anxiety and age, was not statistically significant but the correlation with anxiety (r = .16, p < .05), controlling for avoidance and age, was statistically significant. Because analysis of demographics indicated that age was significantly correlated with authoritarian parenting as well as avoidance and anxiety, both of the above correlations controlled for the effect of age by partial correlation. Results suggest that students who recalled more authoritarian parenting experienced more abandonment anxiety in adult romantic relationships (see Table 9).

A one-tailed partial correlation was performed to test the hypothesis that parenting recalled as permissive would be positively correlated with anxiety; the correlation was not statistically significant (r = .01, ns), while controlling for avoidance. Although there was no specific hypothesis regarding permissive parenting and the adult attachment dimension of avoidance, this two-tailed correlation was not statistically significant (r = .12, ns), while controlling for anxiety (see Table 9).

Inter-parental conflict.

A one-tailed partial correlation was performed to test the hypothesis that recall of inter-parental conflict properties, such as frequency and intensity, would be positively correlated with avoidance. The correlation was not statistically significant (r = .13, p = .05), while controlling for anxiety, although there was a trend suggesting that conflict properties may be positively related to avoidance. Although there was no specific hypothesis regarding conflict properties and anxiety, this two-tailed partial correlation was not statistically significant (r = .12, ns), while controlling for avoidance (see Table 9).

A one-tailed partial correlation was performed to test the hypothesis that recalled self-blame regarding inter-parental conflict would be positively correlated with anxiety. The partial correlation was not statistically significant (r = .12, p = .07) when controlling for the effects of avoidance and age, although there was a trend suggesting that self-blame may be positively related to anxiety. While there was no specific hypothesis regarding self-blame and avoidance, this two-tailed partial correlation (r = .07, ns) did not reach statistical significance when controlling for anxiety and age. These analyses partialled out the effect of age because analysis of demographics indicated that age was

significantly correlated with both avoidance and anxiety as well as self-blame (see Table 9).

One-tailed correlations were performed to test the hypothesis that recalled threat to the self would be positively correlated with avoidance and with anxiety. The correlation with avoidance ($r = .18$, $p < .05$), while controlling for anxiety, and the correlation with anxiety ($r = .21$, $p < .01$), while controlling for avoidance were both statistically significant. Results suggest that students who recalled more perceived threat resulting from parental arguments were more avoidant and had more abandonment anxiety in adult romantic relationships (see Table 9).

Childhood maltreatment.

One-tailed partial correlations were performed to test the hypothesis that recall of physical abuse would be positively correlated with avoidance and negatively correlated with anxiety. The correlation between physical abuse and avoidance while controlling for anxiety ($r = .12$, $p = .06$), and the correlation between physical abuse and anxiety while controlling for avoidance ($r = .12$, $p = .06$) were both not significant. However, there were trends suggesting that physical abuse may be positively related to both avoidance and anxiety (see Table 9).

One-tailed partial correlations were performed to test the hypothesis that recall of physical or emotional neglect would be positively correlated with avoidance and negatively correlated with anxiety. The correlation between physical neglect and avoidance while controlling for anxiety was statistically significant ($r = .17$, $p < .05$). The partial correlation between physical neglect and anxiety was not statistically significant ($r = .04$, ns), when controlling for the effect of gender and avoidance. The effect of gender

was controlled for because analysis of demographics indicated that gender was significantly correlated with both anxiety and physical neglect. The correlations between emotional neglect and avoidance ($r = .23$, $p < .01$) while controlling for anxiety and between emotional neglect and anxiety ($r = .13$, $p < .05$) while controlling for avoidance were both statistically significant. However, the correlation for anxiety was not in the expected direction. Results suggest that students who recalled more physical or emotional neglect were more avoidant in adult relationships. Further, students who recalled more emotional neglect experienced more abandonment anxiety in adult relationships (see Table 9).

One-tailed partial correlations were performed to test the hypothesis that recall of sexual abuse would be positively correlated with avoidance and anxiety. Both the correlation between sexual abuse and avoidance while controlling for anxiety ($r = .08$, ns) and the correlation between sexual abuse and anxiety while controlling for avoidance ($r = .08$, ns) were not significant (see Table 9).

Attachment Dimensions and Defensive Styles

Defensive maturity.

One-tailed partial correlations were performed to test the hypothesis that the adult attachment dimensions of avoidance and anxiety would be negatively correlated with a mature defensive style. The partial correlation with avoidance ($r = -.18$, $p < .05$) while controlling for anxiety and age and the partial correlation with anxiety ($r = -.21$, $p < .01$) while controlling for avoidance and age were both statistically significant. Age was controlled for because analysis of demographics indicated that age was significantly correlated with mature defenses as well as avoidance and anxiety. Results suggest that

students who endorsed using more mature defensive styles were less avoidant and less anxious in adult romantic relationships (see Table 10).

One-tailed partial correlations were performed to test the hypothesis that avoidance would be positively correlated with the use of neurotic defenses and anxiety would be negatively correlated with neurotic defenses. The partial correlation with avoidance, while controlling for anxiety and age was not statistically significant (r = -.06, ns). The partial correlation with anxiety (r = .16, p < .05) while controlling for avoidance and age was statistically significant, but not in the expected direction. Both correlations controlled for the effect of age because analysis of demographics indicated that age was significantly correlated with neurotic defenses as well as avoidance and anxiety. Results suggest that students who endorsed more neurotic defenses experienced more abandonment anxiety in adult relationships. It is important to note that the low alpha for the neurotic scale makes non-significant results difficult to interpret (see Table 10).

A one-tailed partial correlation was performed to test the hypothesis that anxiety would be positively correlated with the use of immature defenses. The partial correlation (r = .36, p < .01) was statistically significant when controlling for avoidance and age. Although no specific hypothesis was made regarding the relationship between avoidance and the use of immature defenses, the two-tailed partial correlation was statistically significant (r = .36, p < .01) when controlling for avoidance and age. Age was controlled for because analysis of demographics indicated that age was significantly correlated with immature defenses as well as avoidance and anxiety. Results suggest that students who endorsed using more immature defenses were more avoidant and had more abandonment anxiety in adult relationships (see Table 10).

Specific defenses differing on avoidance.

To test the hypothesis that specific immature defenses may be differentially utilized depending on the degree of approaching or avoiding others that may be a characteristic of each defense, one-tailed partial correlations were performed between specific immature defenses and the attachment dimensions while controlling for the influence of age.

One-tailed partial correlations were performed to test the hypothesis that acting out, dissociation, and somatization would be negatively correlated with avoidance and positively correlated with anxiety. The partial correlations for acting out ($r = .25$, $p < .01$) and somatization ($r = .33$, $p < .01$) with anxiety were both statistically significant, while controlling for the effects of avoidance and age. The partial correlation between dissociation and anxiety ($r = -.14$, $p < .05$) was also statistically significant, while controlling for the effects of avoidance and age, but not in the expected direction. The partial correlations for acting out ($r = .01$, ns), dissociation ($r = .07$, ns), and somatization ($r = -.01$, ns) with avoidance were not statistically significant, while controlling for the effects of age and anxiety. Age was controlled for because analysis of demographics indicated that age was significantly correlated with defensive maturity as well as avoidance and anxiety. Results suggest that students who endorsed using acting out or somatization defenses experienced more abandonment anxiety in adult relationships. In contrast, those students who endorsed using dissociative defenses were less anxious in adult romantic relationships (see Table 10).

One-tailed partial correlations were performed to test the hypothesis that fantasy, passive aggression, and projection would be positively correlated with avoidance and

anxiety. The correlations for fantasy (r = .28, p < .01) and passive aggression (r = .25, p < .01) with avoidance were both statistically significant and the correlation for projection was not statistically significant (r = .10, ns), while controlling for the effects of anxiety and age. The correlations for fantasy (r = .32, p < .01) and projection (r = .37, p < .01) with anxiety were statistically significant, while controlling for the effects of avoidance and age. There was a trend (r = .12, p = .06) suggesting that passive aggression may be positively related to anxiety while controlling for avoidance and age. Age was controlled for because analysis of demographics indicated that age was significantly correlated with defensive maturity as well as avoidance and anxiety. Results suggest that students who endorsed using more fantasy were more avoidant and had more abandonment anxiety, students who endorsed more projection had more abandonment anxiety, and students who endorsed more passive aggression were more avoidant and possibly had more abandonment anxiety (see Table 10).

Supplemental Analyses

The above analyses related to specific hypotheses offer detailed information between childhood environmental variables and adult attachment, as well as defensive functioning and adult attachment. However, because the sample size in this study precluded the use of factor analysis to refine the relationships between predictors, a series of multiple regressions was performed to both address the commonalties between predictors and attempt to determine which of these predictors, when considered simultaneously, offer discrete information regarding the dimensions of adult attachment. Because there are many predictors related to recall of childhood experiences, constructs which may overlap, for these supplemental analyses the variables related to parental nurturance, parenting style, inter-parental conflict, and childhood maltreatment were assessed for their intercorrelations (see Table 11). Predictors that shared high correlations (approximately .60 or above) were combined as long as it made conceptual sense to do so. Reliability analyses were then performed on these new predictors, and individual items were deleted when doing so increased the internal consistency of the new predictor. Analyses were then performed using multiple regression with childhood environmental variables predicting dimensions of adult attachment and then multiple regressions were performed with defensive maturity predicting adult attachment.

Childhood Environment and Adult Attachment

Parental nurturance and authoritative parenting were significantly correlated at .63 and were combined into one scale that represents positive parenting characteristics (see Table 12). Emotional abuse correlated with emotional neglect at .75 and with physical abuse at .70; thus these 3 predictors were combined. Physical neglect correlated with

physical abuse at .59, and with emotional neglect at .67 (and with emotional abuse at .46) and therefore was combined with the above 3 predictors. The only remaining childhood maltreatment variable, sexual abuse, correlated with physical neglect at .51 but its correlations with the other childhood maltreatment variables ranged from .37 to .43 and therefore was not combined with the above childhood maltreatment predictors. This new predictor represents emotional and physical maltreatment, excluding sexual abuse. The properties of conflict between parents correlated with threat to the self at .59 and these two predictors were combined to represent traumatic exposure to parental arguments and perceived threat. Emotional abuse was correlated with inter-parental conflict properties at .61, however these predictors were not combined because they did not seem sufficiently conceptually related. While exposure to parental arguments may have an indirectly emotionally abusive impact on children, this is different than abuse directed at children. Further, conflict properties did not share such high correlations with the other maltreatment variables (see Table 11).

The predictor representing positive parenting characteristics, composed of parental nurturance and authoritative parenting, after removing 2 items, had a reliability of alpha = .97. The predictor representing physical and emotional maltreatment, composed of physical abuse and neglect, and emotional abuse and neglect, after removing 3 items had a reliability of alpha = .95. The predictor representing inter-parental conflict exposure and threat, composed of conflict properties and threat to the self, after removing 5 items had a reliability of alpha = .96. The correlations between these new predictors and the remaining original uncombined childhood environment predictors were then assessed (see Table 12). The correlation between positive parenting and

physical/emotional maltreatment was -.71. All other correlations were below .60. Positive parenting and physical/emotional maltreatment predictors were not combined, despite their high correlation, because absence of positive parenting characteristics does not necessarily imply the presence of child maltreatment.

Childhood environment variables predicting avoidance.

Then, hierarchical multiple regression analyses were performed, predicting avoidance. Age was included as a predictor because it was correlated with some childhood environmental variables and with avoidance. Anxiety was included as a predictor because of its correlation with avoidance. Age was entered in step 1, anxiety was entered in step 2, followed by childhood environment predictors in step 3. These predictors were positive parenting, authoritarian parenting, permissive parenting, exposure/threat to inter-parental conflict, self-blame due to inter-parental conflict, physical/emotional maltreatment, and sexual abuse. While the overall F was significant ($F(9,152) = 3.36$, $p < .01$, $R^2 = .17$) no childhood environment predictors were significant (see Table 13).

Further regression analyses were performed removing predictors with the smallest Beta's until only statistically significant predictors remained. The above hierarchical regression was repeated with self-blame excluded because it had the smallest Beta in the previous regression. While the overall F was significant ($F(8,153) = 3.81$, $p < .01$, $R^2 = .17$) no childhood environment predictors were significant (see Table 14). Then the previous hierarchical regression was repeated with exposure/threat also excluded because it had the smallest Beta in the previous regression. The overall F ($F(7,155) = 4.43$, $p <$

.01, R^2 = .17) and the Beta for positive parenting (β = -.21, p < .05) were both significant. No other childhood environment predictors were significant (see Table 15). Then the previous hierarchical regression was repeated with authoritarian parenting also excluded because it had the smallest Beta in the previous regression. The overall F ($F(6,156) = 5.09$, $p < .01$, $R^2 = .16$) was significant, while no childhood environment predictors were significant (see Table 16). Then the previous hierarchical regression was repeated with sexual abuse also excluded because it had the smallest Beta in the previous regression. The overall F ($F(5,157) = 6.04$, $p < .01$, $R^2 = .16$) was significant, while no childhood environment predictors were significant (see Table 17). Then the previous regression was repeated with physical/emotional maltreatment also excluded because it had the smallest Beta in the previous regression. The overall F ($F(4,158) = 7.41$, $p < .01$, $R^2 = .16$) and the Beta for positive parenting (β = -.26, $p < .05$) were both significant, while the only other childhood environment predictor included, permissive parenting, was not significant (see Table 18). A final hierarchical regression was performed as above (age entered in step 1, anxiety entered in step 2, positive parenting entered in step 3). The overall F ($F(3,160) = 9.02$, $p < .01$, $R^2 = .15$) and the Beta for positive parenting (β = -.25, $p < .01$, $\Delta R^2 = .06$) were both significant. Anxiety remained statistically significant (β = .20, $p < .05$, $\Delta R^2 = .06$) in the full model while age was not significant (see Table 19). Results suggest that students who recalled fewer experiences of positive parenting and endorsed more abandonment anxiety were more avoidant in relationships.

Childhood environment variables predicting anxiety.

Hierarchical multiple regression analyses then were performed predicting anxiety. Age and gender were included as predictors because they were correlated with some childhood predictors and with anxiety. Avoidance was also included as a predictor because of its correlation with anxiety. Age and gender were entered in step 1, avoidance was entered in step 2, followed by childhood environment predictors in step 3. These predictors were positive parenting, authoritarian parenting, permissive parenting, exposure/threat to inter-parental conflict, self-blame due to inter-parental conflict, physical/emotional maltreatment, and sexual abuse. While the overall F was significant ($F(10,151) = 4.35$, $p < .01$, $R^2 = .22$) no childhood environment predictors were significant (see Table 20).

Further regression analyses were performed removing predictors with the smallest Beta's until only statistically significant predictors remained. The above hierarchical regression was repeated with exposure/threat excluded because it had the smallest Beta in the previous regression. While the overall F was significant ($F(9,152) = 4.86$, $p < .01$, $R^2 = .22$) no childhood environment predictors were significant (see Table 21). The previous hierarchical regression was repeated with positive parenting excluded because it had the smallest Beta in the previous regression. The overall F ($F(8,153) = 5.50$, $p < .01$, $R^2 = .22$) was significant, while no childhood environment predictors were significant (see Table 22). The previous hierarchical regression was repeated with sexual abuse excluded because it had the smallest Beta in the previous regression. The overall F ($F(7,154) = 6.29$, $p < .01$, $R^2 = .22$) was significant, while no childhood environment predictors were significant (see Table 23). The previous hierarchical regression was repeated with self-

blame excluded because it had the smallest Beta in the previous regression. The overall F ($F(6,156) = 6.59$, $p < .01$, $R^2 = .20$) was significant, while no childhood environment predictors were significant (see Table 24). The previous hierarchical regression was repeated with permissive parenting excluded because it had the smallest Beta in the previous regression. The overall F ($F(5,157) = 7.65$, $p < .01$, $R^2 = .20$) was significant, while no childhood environment predictors were significant (see Table 25). A final hierarchical regression was performed as above (age and gender entered in step 1, avoidance entered in step 2, physical/emotional maltreatment entered in step 3). The overall F ($F(4,159) = 8.86$, $p < .01$, $R^2 = .18$) and the Beta for physical/emotional maltreatment ($\beta = .16$, $p < .05$ $\Delta R^2 = .02$) were both significant. Avoidance ($\beta = .20$, $p < .01$, $\Delta R^2 = .06$), gender and age ($\beta = .21$, $p < .01$; $\beta = -.19$, $p < .05$ respectively, $R^2 = .10$) remained statistically significant in the full model (see Table 26). Results suggest that older students, female students, those who endorsed more avoidant tendencies in relationships, and those students who recalled more experiences of physical or emotional maltreatment, experienced more abandonment anxiety in relationships.

Attachment Dimensions and Defensive Styles

Defensive maturity.

While the above correlations between attachment dimensions and defensive maturity styles offer information regarding the relationships between the individual dimensions of avoidance and anxiety as they relate to defensive maturity, both attachment dimensions contribute to our understanding of how adults approach relationships. Therefore it may be useful to understand how these dimensions taken together relate to

defensive maturity. That is, if we know a student's scores on avoidance and anxiety together, what may that suggest regarding their defensive maturity and how much does knowledge of their attachment patterns contribute to prediction of defensive styles.

Therefore, three hierarchical multiple regression analyses were performed with age entered first, followed by avoidance and anxiety simultaneously as predictors of the three defensive maturity levels. Age was entered first because it was significantly correlated with both defensive maturity and anxiety. In the first regression, age was entered in step 1 ($\Delta R^2 = .04$), followed by avoidance and anxiety in step 2 ($\Delta R^2 = .09$) predicting mature defenses (overall $F(3, 160) = 8.36$, $p < .01$, $R^2 = .14$). Anxiety ($\beta = -.21$, $p < .01$) and avoidance ($\beta = -.18$, $p < .05$) significantly predicted endorsement of mature defenses suggesting that those students who had less abandonment anxiety and were less avoidant endorsed more mature defenses. Age was non-significant in the full model (see Table 27). Knowledge of students' attachment patterns contributed toward 9% of the variance in the use of mature defenses beyond that information offered by age.

In the second regression, age was entered in step 1 ($\Delta R^2 = .03$), followed by avoidance and anxiety in step 2 ($\Delta R^2 = .03$) predicting neurotic defenses (overall $F(3, 160) = 3.34$, $p < .05$, $R^2 = .06$). Anxiety ($\beta = .17$, $p < .05$) significantly predicted endorsement of neurotic defenses suggesting that those students higher in abandonment anxiety endorsed more neurotic defenses. Age and avoidance were not statistically significant in the full model (see Table 28). Knowledge of students' attachment patterns contributed toward 3% of the variance in the use of neurotic defenses after accounting for age.

In the third regression, age was entered in step 1 ($\Delta R^2 = .06$), followed by avoidance and anxiety in step 2 ($\Delta R^2 = .27$), predicting immature defenses (overall $F(3, 160) = 26.32$, $p < .01$, $R^2 = .33$). Avoidance ($\beta = .34$, $p < .01$) and anxiety ($\beta = .34$, $p < .01$) significantly predicted endorsement of immature defenses suggesting that students higher in avoidance and higher in anxiety endorsed more immature defenses. Age was not statistically significant in the full model (see Table 29). Knowledge of students' attachment patterns contributed toward 27% of the variance in the use of immature defenses after accounting for age.

Analyzing this data from a categorical attachment perspective has been avoided due to the loss of information that occurs by classifying subjects into groups. For example, once someone is classified as preoccupied, it is no longer known to what degree that subject is preoccupied when compared to other preoccupied subjects. However, visual inspection can highlight the potential relationships between adult attachment and defensive maturity. Therefore, subjects were grouped into the adult attachment categories so that attachment groups could be plotted against their mean scores on endorsement of the 3 defense maturity levels. By classifying students into groups based on their avoidance and anxiety scores, these 2 variables could be plotted in the same graph, while controlling for the effect of age. Grouping was accomplished via cluster analyses. First, a hierarchical cluster analysis was performed requesting 4 groups, using Ward's method and squared Euclidian distances. This produced group means that were then used to seed a k-means cluster analysis, allowing group centroid means to vary as 4 groups were created. K-means clustering allows members to change groups as group means change

but this method is improved when initial cluster centers are reliable. Thus, using a hierarchical method first provides necessary cluster centers to seed the k-means analysis. These 4 groups were plotted against scores for secure, neurotic, and immature defense means scores for the 4 groups (see Figure 1). The figures are ordered by the hypothesized ordering where securely attached students were expected to utilize the most mature defenses, followed by dismissings, preoccupieds and fearfuls. Inspection of the figures demonstrates a general trend that suggests this hypothesized ordering may be valid in this sample. While visual inspection may demonstrate trends between attachment groups and between defense levels, no statistical differences are implied by this visual inspection. For example, despite apparent differences between groups on the use of neurotic defenses, prior statistical analyses reflected no significant differences for avoidance scores and neurotic defenses.

Discussion

The main goals of this study were to identify recalled formative experiences with others in the childhoods of college students that may be related to their current attachments to others, and to further refine understanding of what it means in adulthood to approach/avoid others or fear abandonment. Specifically, what can be learned about someone's defensive functioning in general, if the attachment dimensions of avoidance and anxiety are known. If one fears abandonment, for example, are there defense mechanisms that this person may be more likely to utilize than others?

Work that has addressed correlates of adult attachment from childhood has typically been restricted to constructs such as parental care and protection, or events such as parental divorce or death (Brennan & Shaver, 1998). This study attempts to expand the range of childhood contributors to adult attachment. Similarly, Bowlby (1973) viewed attachment as a form of defensive operation, yet he focused little on attachment as it relates to conceptualizations of defensive processes. Others have also neglected the place of attachment within research related to defenses (exceptions include Diehl, Elnick, Bourbeau, & Labouvie-Vief, 1998; Lopez et al., 1997).

In general, results for hypotheses between recalled childhood environmental variables and the dimensions of attachment suggest that these environmental variables may act as protective or risk factors for either avoidance or anxiety and sometimes both (not necessarily as true predictors given the cross sectional retrospective data collection). That is, no hypotheses that involved predicting a positive correlation with one attachment dimension and a negative correlation with the other, were

supported. For example, if emotional abuse was correlated positively with avoidance, then given the overall pattern of results obtained, emotional abuse would not be expected to correlate negatively with anxiety.

Further, all statistically significant correlations between recalled environmental variables from childhood and the adult attachment dimensions were small to moderate in size. It makes conceptual sense that any one experience from childhood should not have a larger correlation, and potential predictive power, with a construct in adulthood that is thought to have been shaped by many varied experiences from birth to adulthood. Inspection of predictors did not suggest that restriction of range could account for the relatively low correlations and exploratory transformations of predictors with positive skew did not change any statistical results and therefore were not included in analyses. Other research that has explored relationships between adult attachment styles and retrospective family of origin variables in a broad based adult age range has demonstrated similarly modest correlation sizes (Diehl et al., 1998). Research by Brennan and Shaver (1998) on adult attachment and recall by college students of parental care-giving characteristics also demonstrated similarly modest effect sizes for any one care-giving attribute; effect sizes, ranged between .03 and .06 (eta^2) for characteristics such as acceptance by parent and parent fostering independence. However, as would be expected, in this study higher inter-correlations among predictors, across childhood environmental variable domains, were observed. For example, note the correlations between authoritative parenting and the following: nurturance, r=.63, emotional neglect, r= -.64, and threat to the self, r= -.38.

Yet it was hoped that when statistically combining via multiple regression a range

of experiences from childhood via the supplemental analyses, many of which happened in the same environments which attachment dimensions are expected to form, that greater variance could be accounted for than was found. After controlling for relevant demographic variables, significant childhood predictors accounted for between 2% and 6% of the variance in dimensions of adult attachment. However, simultaneous multiple regression involving conceptually related predictors is a conservative approach that reduces each variable's predictive power to the extent that it is correlated with other predictors. Thus, the unique variance offered by each predictor is emphasized with the potential risk of ignoring potentially important, but not necessarily unique, contributors to variance in avoidance or anxiety.

Conversely, multiple regression is useful in this study because the scales in the present sample could not be factor analyzed. To the extent that childhood environmental constructs considered here may measure similar latent variables, multiple regression de-emphasizes these commonalties. Despite the caution that must be used when interpreting these non-factored scales it is important to note that of the 5 multi-factor scales used in the study, 2 were previously factor analyzed on undergraduate samples. Two more were previously factor analyzed on adolescent and adult psychiatric samples. The fifth and only scale to not be factor analyzed previously utilized clinician inter-rater agreement in scale construction as well as concurrent and criterion validity testing on undergraduate samples.

Despite data collection that is retrospective regarding childhood environments and cross-sectional, results related to childhood environmental variables will be considered as potential predictors of adult attachment with the understanding that at best, these

relationships can suggest only correlates and only offer potential avenues for further longitudinal study rather than as true predictors. Results will be considered below for each of the major domains of childhood environmental variables and defensive processes hypotheses assessed in the context of existing research.

Parental Nurturance and Adult Attachment

It was hypothesized that parental nurturance would be negatively related to avoidance because nurturance by parents was expected to encourage the tendency to approach others, rather than avoid others, under stressful circumstances. Results supported this hypothesis. Positive nurturing experiences with parents may promote a tendency to approach others during stressful situations into adulthood. Alternatively, those college students, who as children already approached others may be more able to experience positive nurturant interactions with caregivers. That is, a child who avoids others during stressful times may preclude the possibility of nurturant interactions with caregivers.

No hypothesis was made regarding the relationship between nurturance and anxiety and results which demonstrated no significant correlation between the two, suggest that in fact, nurturance is more related to one's model of others than one's model of self. Some research suggests a possible link between nurturance and the attachment self model which comes from the hypothesized relationship between self-esteem and the attachment self model. There has been speculation (Griffin & Bartholomew, 1994) that the constructs of self-esteem and the attachment model of self share considerable overlap. Research which assessed women's coping responses to first trimester abortions found that women's model of self directly contributed to their successful response to this stressful

situation, yet when self-esteem was also entered as a predictor, much of the self model's contributions were eliminated or largely decreased in magnitude (Cozzarelli, Sumer, & Major, 1998). While there appears to be considerable commonalties between these two constructs, it is less clear where they diverge. But if self-esteem and the self model are rather similar, then Buri's (Buri, Kirchner, & Walsh, 1987; Buri, 1989) work demonstrating the relationship between nurturance and self-esteem can be extended to hypothesize that nurturance should impact one's attachment self model. Instead however, even though there is this potential overlap, in the current study nurturance was unrelated to abandonment anxiety. Perhaps the presence of frequent nurturant interactions communicates to the child that others are actively helpful but its absence does not impact the child's model of self when it could impact their self-esteem. This may be one point of divergence between self-esteem and the attachment self-model.

Parenting Styles and Adult Attachment

As hypothesized, participants who recalled parenting as more authoritative endorsed being less avoidant of others and less anxious regarding abandonment. This care-giving style appears to be a potential generalized protective factor at least against insecure attachments. Authoritative parenting, as defined by the PAQ questions, involves active firm parenting rules applied toward a child's behaviors. This may communicate that parents are caring authorities thus enhancing the child's sense that others can be depended on and positively impacting the child's attachment model of others (and increasing the approach of others). In addition, authoritative parenting involves active interest in the child's perspective on how they are parented perhaps validating the child's sense of worth and promoting a positive attachment self-model (decreasing abandonment

anxiety).

These same results can be interpreted from the categorical attachment perspective. For example, students' recall of authoritative parenting having negative correlations with both avoidance and anxiety suggests that secure students (who by definition are low in avoidance and anxiety) were most likely to recall authoritative parenting and fearful students (who by definition are high in avoidance and anxiety) were most likely to recall parenting that was not authoritative. This current finding is generally consistent with that found in a large sample with a much greater adult age range (mean age 48.6) where secure adults were associated with recall of a more positive family-of-origin climate and fearful adults reporting a more negative family-of-origin climate (Diehl et al., 1998). While they did not find significant relationships between dismissing or preoccupied adults and recalled family climate, this absence when compared to the significant findings for secures and fearfuls highlights the extreme attachment qualities possessed by both secure and fearful adults. That is, secures are both low in avoidance and anxiety while fearfuls are high in avoidance and anxiety. Together these results highlight the potential stability of this finding from young through middle adulthood, from a narrower college sample, whose members may have evolving perceptions of parents, to a wider range sample, whose members could be expected to possess more stable views of their parents.

In contrast to the hypothesis that authoritarian parenting would be positively correlated with avoidance and negatively correlated with anxiety, participants who recalled experiencing authoritarian parenting were more likely to have higher abandonment anxiety but not higher avoidance. Authoritarian parenting may communicate to the child that they are not lovable rather than parents are not dependable

or understanding. That is, the child's perspective on how they are parented is not valued by the authoritarian parent. Thus, the child is not valued. It may be more difficult for this child to test out their own perceptions against their parents' and thereby struggle to develop trust in an internal sense of control and safety. The child in the authoritarian home may learn to rely solely on external control, never sufficiently forming their own sense of what seems right. This is quite similar to learning that one is not valued by others, but perhaps also, one's judgments do not have value. As this child grows up he or she may maintain a view that their own perceptions or judgments are not valid. The external authority knows what is right and the child must maintain proximity to these parents and work toward pleasing them. In this case, the positive self view may only be possible when receiving praise and avoiding criticism of the authoritarian parent thereby increasing the child's abandonment anxiety. Considering categorical attachment styles high in anxiety, the preoccupied may seek out others for this external control or guidance, and the fearful may wish to but fears rejection. Mikulincer (1998) has suggested that anxious-ambivalent adults inflate their sense of personal unworthiness, akin to the negative self model, when under stress as a method of receiving help from perceived stronger others. This type of response may be fostered in relationships with parents that are perceived as authoritarian; the child's opinion has no value. Thus, a devalued attachment self model may be encouraged by authoritarian parenting.

Interestingly, while it was hypothesized that recall of permissive parenting would contribute to abandonment anxiety, it was found to be unrelated to either of the dimensions of adult attachment. It was expected that permissive parenting as defined by the PAQ items, with its lack of parental guidance, would be associated with higher

abandonment anxiety as that would be perceived by the child as not having a dependable other to rely on. In retrospect, this hypothesis may have confused attributes of the attachment self and other models. Specifically, the active component thought to matter in permissive parenting was a lack of parental guidance, which as suggested above for the authoritarian and authoritative parenting styles, seems most related to the attachment model of others. But it was expected that this lack of guidance would make the child fear abandonment, which defines one's attachment self model. Thus in hindsight, a better hypothesis would be to expect that a lack of parental guidance would be associated with a negative model of others; others are not helpful. Regardless, results suggest that permissive parenting is not statistically significantly related to either attachment dimension.

To help understand how the different parenting styles may differentially relate/impact dimensions of adult attachment it might be useful to compare these correlations across parenting styles even though some may be non-significant. To review, authoritative parenting is described as a parenting style involving both firm parental control and acceptance of the child's input, authoritarian parenting involves parental control with abnegation of input from the child, and permissive parenting involves support of child's input at the expense of parental control. Results showed authoritative to be negatively correlated with both avoidance and anxiety, authoritarians' correlation with avoidance was .01 (ns) and with anxiety was .16, while permissives' correlation with avoidance was .12 (ns) and with anxiety .01 (ns). Thus it appears that authoritarian and permissive parenting could affect attachment dimensions in an opposite manner although this was not supported statistically. Nonetheless, perhaps the presence

of parental control and the absence of child's input contributes to a negative self model (higher abandonment anxiety) while the presence of child's input and absence of parental control contributes to a negative model of others (higher avoidance). Yet, the presence of both contributes to both positive self and other models. Perhaps there is an interaction between parental control and input from the child that impacts the attachment dimensions.

This finding is consistent with Buri's work in which he found significant relationships between parental authoritativeness, authoritarianism and adolescent self-esteem, but not between permissiveness and self-esteem (1989). Pawlak and Klein (1997) found both recall of authoritative parenting and nurturance to be related to self-esteem in college students but permissive and authoritarian parenting styles were not related to students' self-esteem. However, in regression analyses, which included parents' nurturance, they found that mother's permissiveness marginally (2% of variance), and negatively, contributed to student's self-esteem. Perhaps permissive parenting communicates parental confidence in the child's ability to make decisions, which may enhance self-esteem, at the expense of the withholding of parental guidance, which could reduce self-esteem.

Inter-Parental Conflict and Adult Attachment

All correlational results between inter-parental conflict and adult attachment were as hypothesized; yet, some of these were only trends in the hypothesized direction. The properties of conflict between parents such as the frequency and intensity of conflict and whether conflict goes unresolved, as recalled by these college students, was hypothesized to contribute toward avoidance and there was a trend suggesting it could be positively

related to avoidance. These factors, which may generally reflect the amount of overt conflict and perhaps chaos in the home, appear to contribute to a preoccupied or fearful attachment style.

Similarly, self blame was expected to be positively related to anxiety yet there was only a trend suggesting this. Again, this may be interpreted as the child who blames him or herself for parental conflict views the self as bad, not the parents. Thus, self blame may lead to the perception that the self is unlovable and may be abandoned. Self-blame during and after parent's arguments may be a precursor to fearful and preoccupied attachments. Preoccupied and fearful adults have been described as prone to self-doubt and guilt (Feeney & Noller, 1996) and research has demonstrated that preoccupied and fearful college students are more prone to shame (Lopez, Gover, Leskela, Sauer, Schirmer, & Wyssmann, 1997) all constructs which share similarities to self-blame. When a child perceives the self as the cause of parental arguments, parents are removed from blame. Thus, the self is viewed as bad (higher anxiety) but avoidance of others may not need to occur because the child has placed blame on him/her self. Children place the blame for parental arguments on themselves.

Bickham and Fiese (1997) used the CPIC with late adolescents and compared the results of their factor analyses with those of Grych et al. (1992) who originally used the CPIC with primary school children. Bickham and Fiese noted that in their late adolescent sample, self-blame had a floor effect, being endorsed less so than the other constructs. They suggested that self-blame may be a tendency of younger children and that late adolescents may be better able to assess parental conflict and not blame themselves as children might. In this study, self-blame was also endorsed less frequently than threat

and conflict properties. Further, there was a statistically significant correlation between self-blame and age such that younger college students were more likely than older students to blame themselves for conflict between parents.

As expected, results suggest that threat to the self is positively related to both avoidance and anxiety. Further, this is the only inter-parental conflict predictor to easily reach statistical significance. This may be the most globally detrimental aspect of parental quarrels as it may capture both fear of others (negative model of others) if one feels personally threatened by parents' arguments plus self-blame (negative self model) resulting from the sense that the child may be the cause of parental arguments.

Child Maltreatment and Adult Attachment

Many hypotheses for the relationships between recall of severe child maltreatment and adult attachment included negative correlations. None of these negative correlational relationships were found. The childhood maltreatment variables, especially sexual abuse, were the only predictors to notably suffer from restriction of range in this college sample. Despite this, statistically significant correlations with avoidance and anxiety were found. Recalled emotional neglect was positively correlated with avoidance and anxiety, while physical neglect was positively correlated with avoidance. Further, there were trends suggesting that physical abuse may be positively related to avoidance and anxiety. These are interesting findings in light of the hypotheses. It suggests that any form of maltreatment cannot produce a positive view of self or others. That is, perhaps even a dismissing adult would not have developed a positive view of self (low abandonment anxiety) as a result, in any part, by physical abuse or a preoccupied adult would not maintain a positive view of others (low avoidance) as a result of neglect. Instead, these

forms of child maltreatment may act in face valid ways contributing to a negative view of self or others but not cause them to approach others or defensively maintain a positive view of self.

Results suggest that physical abuse may be related to both increased avoidance and anxiety (yet these were merely trends). Physical neglect was positively related to avoidance and emotional neglect was positively related to both avoidance and anxiety. Sexual abuse, possibly compromised by restriction of range, demonstrated no relationships with either attachment dimension. Overt physical abuse was expected to be positively related to avoidance while neglect was expected to be positively related to anxiety. If there are differences here, they suggest that neglect seems more associated with avoidance. Physical abuse may communicate to the child that the self is bad (higher anxiety) and others should be avoided (higher avoidance). It is interesting to consider the differences between physical and emotional neglect. Perhaps while neglect generally may suggest to a child that others cannot be relied upon, emotional neglect may also impact one's view of self because the child's self, what they think and feel, are ignored.

Within the insecure categorical attachment styles, while it appears that physical abuse and emotional neglect may contribute to both avoidance and anxiety, or a fearful attachment, it is possible to suggest for example, that physical neglect contributes to dismissing and fearful attachments, and does not contribute to a preoccupied attachment.

Supplemental Childhood Analyses

To review, characteristics termed positive parenting, defined by parental nurturance and authoritative parenting, accounted for 6% of variance in avoidance after controlling for anxiety and age. Childhood experiences defined by physical and

emotional maltreatment accounted for 2% of the variance in anxiety after controlling for age, gender, and avoidance. While these variances are meager especially for anxiety, what is important is the fact that when considering which characteristics of childhood experiences contribute most to the dimensions of adult attachment, these constructs remained significant while others did not. That is, positive parenting experiences best determined whether one would describe oneself as avoidant and was more important that inter-parental conflict or instances of child maltreatment. Whereas active negative childhood experiences defined best whether one would fear abandonment in adult relationships and was more important than positive parenting experiences and inter-parental conflict.

While there may be considerable overlap between these constructs of positive parenting and physical/emotional maltreatment, one was more predictive of avoidance and the other of anxiety. Where these constructs most likely diverge is at their extreme ends. Positive parenting at one end of its spectrum involves nurturant authoritative parenting, and at the other end, parenting which is low in warmth and authoritativeness. It is likely that this end is defined by other parenting styles and possibly correlates positively with physical/emotional maltreatment. Similarly, one end of the physical/emotional maltreatment dimension is obviously characterized by abuse and/or neglect. But the other end, in the absence of abuse and neglect, is less clearly defined and certainly may be positively correlated with positive parenting. Thus, it is likely that the reason that each construct is a better predictor of either avoidance or anxiety is due to nurturant authoritative care-giving being a protective factor against avoidance, and instances of child maltreatment (thereby internalizing a negative self-view) contributing

to greater anxiety in relationships. Importantly, this does not mean for example that positive parenting is unrelated to anxiety, merely that instances of child maltreatment account for more variance in anxiety than does positive parenting.

In this study, nurturance appeared as the sole significant predictor of avoidance in multiple regressions; however, it was not the strongest predictor of anxiety. Other research has suggested that most of the variance that parenting styles (authoritative, authoritarian, and permissive) contribute toward self-esteem may be accounted for instead by parental nurturance (Buri, 1989), which itself has been shown to account for 40% of the variance in college students' self-esteem. That is, each of the parental authority styles may provide information regarding the amount of nurturance a child received. This demonstrates the higher potential predictive power of parental nurturance.

Adult Attachment and Defensive Functioning

Moderate support was demonstrated for hypotheses between defensive functioning and dimensions of adult attachment. Like hypotheses for childhood environmental variables, these relationships demonstrate generalized positive or negative relationships with the dimensions of adult attachment. However, also like childhood environmental hypotheses, those that suggested negative correlational relationships between less mature defensive functioning and avoidance or anxiety, were not supported. As above, this can be understood that a psychological variable representing poorer psychological health, such as a less mature defense style, is not as likely to be associated with another variable representing worse psychological health, such as a negative view of self (high anxiety) in a negative direction as it is in a positive direction. Thus, an adult high in abandonment anxiety is more likely to demonstrate less mature defenses than

more mature defenses.

Caution must used when interpreting results regarding defensive functioning due to the poor scale reliability demonstrated in this sample on the neurotic scale (alpha=.49). While it is reasonable to be somewhat confident regarding significant correlations between the neurotic scale and the adult attachment dimensions despite this poor reliability, non-significant correlations cannot be interpreted as implicit support for the null hypothesis. Low alphas attenuate relationships between hypothesized variables. Despite these varied reliabilities (.55, .49, and .78), these scales demonstrated a similar pattern to the alphas reported in previous published research using the DSQ. While the Diehl et al. (1998) study did not report alphas, Ungerer et al. (1997) reported alphas for the immature factor of .79 and .74 (female and male) and the alphas for the neurotic and mature factors ranged from .47 to .61. Similarly, Andrews et al. (1993) reported alphas of .80 for the immature factor, .58 for the neurotic factor, and .68 for the mature factor. While these reliabilities are somewhat higher than those for the present sample, note the similar ordering of reliabilities with immature defenses being the most robust and neurotic defenses having the lowest reliability. The authors of the DSQ suggest that the DSQ factors attempt to measure more heterogeneous sets of behaviors than is common and this reduces internal consistency. However, that does not aid understanding of why the neurotic scale seems to consistently be the least reliable.

Regarding the three main categories of defensive maturity, hypotheses were as expected in terms of the relative ordering of defense maturity that different adult attachment styles should utilize; however, the defensive maturity of these college students, based on correlations with the attachment dimensions, was higher than

hypotheses predicted. From a categorical attachment perspective, hypotheses suggested that secure adults would use the most mature defenses, dismissing adults would use the most neurotic defenses, while preoccupied adults and fearful adults would use the most immature defenses. This was intended to reflect in some way a relative measure of distress regarding relationships and perhaps emotional health.

Results suggest that endorsement of more mature defenses is associated with lower avoidance and anxiety (secure), use of neurotic defenses may be associated with greater anxiety (fearful and preoccupied), and use of more immature defenses is associated with greater avoidance and anxiety (fearful). Thus, the order between which attachment styles should demonstrate the most mature defenses was mostly confirmed, for example fearful students utilizing the most immature defenses, fearfuls and possibly preoccupieds using the most neurotic defenses, and secures using the most mature defenses. But, the level of defensive maturity, across attachment styles, was higher than expected. This in part, makes sense given the DSQ's intended use for assessing not only normal populations but for people with severe emotional problems. This highlights a benefit of the DSQ's having three different continuously measured factors. Even with college students' relative emotional health compared to other populations, correlational analyses are able to highlight that students higher in anxiety and/or avoidance still endorsed less mature defensive functioning overall. These results are consistent with Diehl et al.'s (1998) study that included a wider range of adult participants and utilized the DSQ to assess defenses. They found significant correlations between fearful attachment and more neurotic defenses, preoccupied and fearful attachments and more immature defenses, and secure attachment and fewer immature defenses. Here too, the

general hierarchy of attachment-defense maturity pairings is evident.

Yet it is here when interpreting no correlation between neurotic defenses and avoidance and a positive correlation between neurotic defenses and anxiety that the neurotic scale's low reliability produces results which may be suspect. It is possible that a signiifcant correlation between avoidance and neurotic defenses could be found given a higher reliability on the neurotic scale. Supporting the current results is Vaillant's (1993) description of the differences between mature, neurotic, and immature defenses. He states that mature defenses are the closest one comes to turning water into wine, using a defense with no glaring expense. Neurotic defenses in his view mostly hurt oneself, while immature defenses also negatively impact others. These results follow this thinking in that neurotic defenses were only associated with a negative self model and immature defenses were related to both negative self and other models. Perhaps, a negative view of self but not others results in defenses that punish only the self, while a negative view of self and others punish both the self and others.

An advantage to viewing attachment styles categorically, as seen in Figure 1, is to highlight the potential conceptual difference between the dismissing and preoccupied styles. While they are both high on one attachment scale and low on the other, it is not likely that they will both be at a similar level regarding maturity of defenses or other psychological constructs. That is, there may be a greater negative impact caused by a negative self model than by a negative model of others.

Immature defenses were expected to be utilized differentially depending on whether those defenses engaged or distanced others as measured by the adult attachment dimension of avoidance. Anxiety was considered because both types of immature

defenses were expected to correlated positively with anxiety. Fantasy, passive aggression, and projection, chosen as representative immature defenses which distance the self from others, were hypothesized to be positively correlated with avoidance. Results demonstrated that fantasy and passive aggression did have positive correlations with avoidance while projection was not related to avoidance. Potential support was demonstrated for the hypothesis that the defenses that engage others would be negatively correlated with avoidance. The three immature defenses chosen as those which approach others (acting out, somatization, and dissociation) were not related to avoidance. While they were not negatively correlated with avoidance as hypothesized, a common finding across hypotheses, they differed from two of three of those which distance others by not having a positive relationship with avoidance. Four of these six defenses did have positive correlations with anxiety and a fifth demonstrated a trend in that direction. Surprisingly, there was a negative correlation between dissociation and anxiety. In other words, it is possible that those lower in abandonment anxiety, such as secures and dismissings may be more likely to utilize dissociation. While this result is exactly opposite to what was hypothesized and should be interpreted with caution, interestingly, Vaillant (1993) has suggested that dissociation is the one immature defense that is more closely related to the next more mature level of defenses, the neurotic defenses. He alternately terms dissociation, neurotic denial, stating that dissociation distorts feelings more than relationships and it attracts others rather than annoys or frustrates others.

It is also of note that in this college sample, which relative to other populations should be rather psychologically healthy, many students endorsed some use of immature defenses. For example, on scales that ranged from "strongly disagree" to "strongly

agree," 36% of students agreed (ranging between mildly and strongly) behaviors that represent acting out and 30% endorsed behaviors representing fantasy.

The unexpected lack of correlation between projection and avoidance is worth consideration. Specifically, how might this defense differ from the other two suggested as distancing others. Fantasy clearly has a tone suggesting interpersonal disengagement and passive aggression does not involve explicit expression of hostility to its object, but projection implies the placement of internal conflict onto others. Perhaps what is most salient here is a negative self model, or abandonment anxiety. If one has a positive view of self, there is less need to project fault onto others. Thus projection may speak more about a negative self model rather than suggest avoidant tendencies. Even so, it still seems plausible that the hostility engendered in projection directed at others could increase avoidance of others.

Schorre (1996) has theorized that anxious-ambivalent infants' autonomic nervous systems are likely to be sympathetically dominant, resulting in higher energy and activity levels while avoidant infants are parasympathetically dominant, resulting in a withdrawal response and lower activity levels. Although he has not differentiated between dismissing and fearful styles, this lower arousal withdrawal state in the avoidant infant shares qualities seen in the above defenses of passive aggression, fantasy, and projection. That is, these defenses, favored in this study by college students whose avoidance and anxiety scores suggest they possess a fearful attachment style, possess more of a withdrawal response than acting out and hypochondriasis.

Summary

The above findings suggest that both avoidance and anxiety are associated with negative experiences in childhood. Further, they indicate that more adaptive attachment functioning is associated with the use of more adaptive defensive styles in adulthood. Notably, students who utilized immature defenses that either approached or rejected others could be differentiated from each other, based on their dimensional attachment ratings.

Because a primary goal of this study was to refine descriptive knowledge regarding the characteristics or correlates of the dimensions of adult attachment, a summary of correlates of dimensional attachment patterns is provided. Those college students higher in the dimension of avoidance were more likely to report less parental nurturance and authoritative parenting; they were more likely to report inter-parental conflict that was higher in threat to the self, childhood maltreatment such as physical abuse (trend) or physical neglect. College students higher in avoidance were also less likely to report the use of mature defenses, and more likely to endorse the use of immature defenses. These immature defenses were specific to those that were suggested as distancing others, namely fantasy, and passive aggression. Those college students higher in the dimension of anxiety were more likely to report less authoritative parenting; they were more likely to report parenting that was authoritarian, inter-parental conflict that was higher in threat to the self, childhood maltreatment such as emotional neglect or physical abuse (trend). College students higher in anxiety were also less likely to report the use of mature defenses, and more likely to endorse the use of neurotic and immature defenses. They were more likely to endorse using immature defenses, both those that

enlist/approach others (acting out and somatization) and those that distance/avoid others (fantasy and projection). Surprisingly however, dissociation was negatively correlated with anxiety.

Positive parenting characteristics such as authoritative parenting and nurturance was the childhood environmental construct best able to account for variance in the adult attachment dimension of avoidance while instances of physical/emotional child maltreatment was the childhood environmental construct best able to account for variance in the adult attachment dimension of anxiety. Defensive maturity levels did generally follow the hypothesized order of "emotional health" as measured by attachment styles. In other words, students higher in avoidance and/or anxiety used less mature defenses than those lower on the attachment dimensions. The dimensions of adult attachment accounted for much greater variance in the immature defenses than for either neurotic or mature defenses.

Limitations and Future Directions

In this cross-sectional study of young adults, true predictors of adult attachment dimensions cannot be found, but correlates allow future exploration of potential contributors to the dimensions of adult attachment. Further, this study is limited by data collection in which all data is reported by one person. Nothing is known regarding how parents may view these same experiences from childhood or how peers would evaluate current defensive functioning and attitudes toward relationships in these college students. Observation of college students' self reported attachment classification, which was used in this study to assess the necessary sample size, suggests that there were a higher number of both preoccupied and fearful subjects and fewer dismissing subjects than is often

reported in more age stratified adult samples (Diehl et al, 1998). This suggests that attachment styles may undergo some developmental adaptation over many years, and that younger college students in particular may be more concerned about their own worthiness in relationships than older college aged persons. Romantic relationships are newer experiences for college students and the development of successful identities in romantic relationships, similar to ego identity (foreclosed etc.) may take time to develop that only experience in successive relationships can provide. Further, Diehl et al.'s study reported statistically significantly more fearful participants among young adults (ages 20 - 40) when compared to older adults (ages 60-87.5), and more dismissings among the older adults when compared to the young adults. They proposed that older adults, confronted with the loss of longtime significant relationships, may adopt the more self-reliant dismissing approach toward relationships.

Results of the relationships between parenting styles and dimensions of attachment suggest the possibility that these parenting styles may differ based on an interaction between parental control and acceptance of input from the child regarding parenting. For example, acceptance of child's input may have differing effects if that input is accepted in the context of firm parenting guidelines (as in the authoritative style) versus the absence of parental guidelines for child's behavior (as in the permissive style). Thus it could be illuminating to view attachment differences predicted by the interaction between parental control and input from the child not readily available from the PAQ scaling at present.

While attachment styles have been characterized as defensive processes (Bowlby, 1973; Mikulincer, 1998) relatively little work has addressed this overlap between

attachment and the large body of work on defenses in general. Mikulincer suggested that, under stress, anxious-ambivalent adults experience a hyperarousal of affect while avoidants exhibit a suppression of affect and this accomplished by defensive processes. Similarly, Schorre (1996) stated that these same attachment styles in infants exhibit high or low levels of arousal respectively. Given that the dimensions of adult attachment are consistent with at least four primary attachment styles, it seems necessary to expand the above work to help explain how fearful adults may respond to stress. Would they have high or low arousal levels and would they suppress affect, and how would these responses relate to their defensive functioning in general. While this study indicates that those high in both avoidance and anxiety seem most prone to endorsing behaviors consistent with the least adaptive defenses it would be helpful to demonstrate these unconscious intrapsychic processes in a manner that does not rely on participants' self report.

APPENDICES

Appendix A: Parental Nurturance Scale

Instructions: The following questions ask about your relationships with your parents. Please use the scale below and put your answers on the scoring sheet.

Strongly Disagree		**neither Agree nor Disagree**		**Strongly Agree**
1	**2**	**3**	**4**	**5**

1 My mother seldom says nice things about me.
2 I am an important person in my mother's eyes
3 My mother often acts as if as if she doesn't care about me.
4 My mother enjoys spending time with me.
5 My mother expresses her warmth and affection for me.
6 My mother is easy for me to talk to.
7 I am tense and uneasy when my mother and I are together.
8 I feel that my mother finds fault with me more often than I deserve.
9 My mother takes an active interest in my affairs.
10 I feel very close to my mother.
11 My mother does not understand me.
12 My mother believes in me.
13 I don't feel like my mother enjoys being with me.
14 My mother doesn't really know what kind of person I am.
15 My mother is a warm and caring individual.
16 My mother does **not** feel that I am important and interesting.
17 My mother is very interested in those things that concern me.
18 My mother is often critical of me and nothing I do ever seems to please her.
19 My mother seldom shows me any affection.
20 My mother consoles me and helps me when I am unhappy or in trouble
21 My mother is generally cold and removed when I am with her.
22 I receive a lot of affirmation from my mother.
23 My mother is very understanding and sympathetic.
24 My mother does not really care much what happens to me.

*****Duplicate for father**

Appendix B: Parental Authority Questionnaire

Strongly Disagree neither Agree nor Disagree Strongly Agree
1 2 3 4 5

1 While I was growing up, my mother felt that in a well run home the children should have their way in the family as often as the parents do.
2 Even if her children didn't agree with her, my mother felt that it was for our own good if we were forced to conform to what she thought was right.
3 Whenever my mother told me to do something as I was growing up, she expected me to do it immediately without asking any questions.
4 As I was growing up, once family policy had been established, my mother discussed the reasoning behind the policy with the children in the family.
5 My mother has always encouraged verbal give-and-take whenever I have felt that family rules and restrictions were unreasonable.
6 My mother has always felt that what children need is to be free to make up their own minds and to do what they want to do, even if this does not agree with what their parents might want.
7 As I was growing up, my mother did not allow me to question any decision that she had made.
8 As I was growing up, my mother directed the activities and decisions of the children in the family through reasoning and discipline.
9 My mother has always felt that more force should be used by parents in order to get their children to behave the way that they are supposed to.
10 As I was growing up, my mother did not feel that I needed to obey rules and regulations of behavior simply because someone in authority had established them.
11 As I was growing up, I knew what my mother expected of me in my family but I also felt free to discuss those expectations with my mother when I felt that they were unreasonable.
12 My mother felt that wise parents should teach their children early just who is boss in the family.
13 As I was growing up, my mother seldom gave me expectations and guidelines for my behavior.
14 Most of the time as I was growing up, my mother did what the children in the family wanted when making family decisions.
15 As the children in my family were growing up, my mother consistently gave us direction and guidance in rational and objective ways.
16 As I was growing up my mother would get very upset if I tried to disagree with her.
17 My mother feels that most problems in society would be solved if parents would not restrict their children's activities, decisions, and desires as they are growing up.
18 As I was growing up, my mother let me know what behaviors she expected of me, and if I didn't meet those expectations, she punished me.
19 As I was growing up my mother allowed me to decide most things by myself without a lot of direction from her.

20 As I was growing up my mother took the children's opinions into consideration when making family decisions, but she would not decide to do something simply because the children wanted it.
21 My mother did not view herself as responsible for directing and guiding my behavior as I was growing up.
22 My mother had clear standards of behavior for the children in our home as I was growing up, but she was willing to adjust those standards to the needs of each of the individual children in the family.
23 My mother gave me direction for my behavior and activities as I was growing up, and she expected me to follow her direction, but she was always willing to listen to my concerns and discuss that direction with me.
24 As I was growing up my mother allowed me to form my own point of view on family matters and she generally allowed me to decide for myself what I was going to do.
25 My mother has always felt that most problems in society would be solved if we could get parents to strictly and forcibly deal with their children when they don't do what they are supposed to as they are growing up.
26 As I was growing up my mother often told me exactly what she wanted me to do and how she expected me to do it.
27 As I was growing up my mother gave me clear direction for my behavior and activities, but she was also understanding when I disagreed with her.
28 As I was growing up my mother did not direct the behavior, activities or desires of the children in the family.
29 As I was growing up I knew what my mother expected of me in the family and she insisted that I conform to those expectations simply out of respect for her authority.
30 As I was growing up if my mother made a decision in the family that hurt me, she was willing to discuss that decision with me and to admit if she had made a mistake.

*****Duplicate for father**

Appendix C: Children's Perceptions of Inter-parental Conflict

Instructions: In every family there are times when the parents don't get along. When their parents argue or disagree, children can feel a lot of different ways. We would like to know what kind of feelings you have when your parents have arguments or disagreements. If your parents don't live together in the same house with you, think about times that they are together when they don't agree or about times when both of your parents lived in the same house, when you answer these questions.

True	**sort of True**	**False**
1	**2**	**3**

1 I never see my parents arguing or disagreeing.
2 When my parents have an argument they usually work it out.
3 My parents often get into arguments about things I do at school.
4 My parents get really mad when they argue.
5 When my parents argue I can do something to make myself feel better.
6 I get scared when my parents argue.
7 I feel caught in the middle when my parents argue.
8 I'm not to blame when my parents have arguments.
9 They may not think I know it, but my parents argue or disagree a lot.
10 Even after my parents stop arguing they stay mad at each other.
11 My parents have arguments because they are not happy together.
12 When my parents have a disagreement they discuss it quietly.
13 I don't know what to do when my parents have arguments.
14 My parents are often mean to each other even when I'm around.
15 When my parents argue I worry about what will happen to me.
16 I don't feel like I have to take sides when my parents have a disagreement.
17 It's usually my fault when my parents argue.
18 I often see my parents arguing.
19 When my parents disagree about something they usually come up with something.
20 My parents' arguments are usually about something I did.
21 The reasons my parents argue never change.
22 When my parents have an argument they say mean things to each other.
23 When my parents argue or disagree I can usually help make things better.
24 When my parents argue I'm afraid that something bad will happen.
25 My mom wants me to be on her side when she and my dad argue.
26 Even if they don't say it, I know I'm to blame when my parents argue.
27 My parents hardly ever argue.
28 When my parents argue they usually make up right away.
29 My parents usually argue or disagree because of the things I do.
30 My parents argue because they don't really love each other.

31 When my parents have an argument they yell a lot.
32 When my parents argue there's nothing I can do to stop them.
33 When my parents argue I worry that one of them will get hurt.
34 I feel like I have to take sides when my parents have a disagreement.
35 My parents often nag and complain about each other around the house.
36 My parents hardly ever yell when they have a disagreement.
37 My parents often get into arguments when I do something wrong.
38 My parents have broken or thrown things during an argument.
39 After my parents stop arguing, they are friendly toward each other.
40 When my parents argue I'm afraid that they will yell at me too.
41 My parents blame me when they have arguments.
42 My dad wants me to be on his side when he and my mom argue.
43 My parents have pushed or shoved each other during an argument.
44 When my parents argue or disagree there's nothing I can do to make myself feel better.
45 When my parents argue I'm afraid that they will get a divorce.
46 My parents still act mean after they have had an argument.
47 My parents have arguments because they don't know how to get along.
48 Usually its not my fault when my parents have arguments.
49 When my parents argue they don't listen to anything I say.

Appendix D: Childhood Trauma Questionnaire

Instructions: These questions ask some of your experiences growing up as **a child and a teenager.** For each question, please fill in the number on the scoring sheet that best describes how you feel. Although some of these questions are of a personal nature, please try to answer as honestly as you can.

Never True **Rarely True** **Sometimes True** **Often True** **Very Often True**
1 **2** **3** **4** **5**

1 When I was growing up, there was someone in my family whom I could talk to about my problems.
2 When I was growing up, people in my family criticized me.
3 When I was growing up, I didn't have enough to eat
4 When I was growing up, people in my family showed confidence in me, and encouraged me to achieve.
5 When I was growing up, someone in my family hit me or beat me.
6 When I was growing up, I felt that I better take care of myself, because no one else would.
7 When I was growing up, people in my family argued or fought with each other.
8 When I was growing up, I lived in a group home or a foster home.
9 When I was growing up, I knew that there was someone to take care of me and protect me.
10 When I was growing up, there was someone outside of my family (like a teacher or a neighbor) who was like a parent to me.
11 When I was growing up, someone in my family yelled and screamed at me.
12 When I was growing up, I saw my mother or one of my brothers or sisters get hit or beaten.
13 When I was growing up, someone in my family made sure that I went to school unless I was sick.
14 When I was growing up, someone in my family called me "stupid" or "lazy" or "ugly."
15 When I was growing up, I was living on the streets by the time I was a teenager or even younger.
16 When I was growing up, there was someone in my family whom I admired or wanted to be like.
17 When I was growing up, my parents were too drunk or high to take care of the family.
18 When I was growing up, I rarely got the love or attention that I needed.
19 When I was growing up, people in my family got into trouble with the police.
20 When I was growing up, there was someone in my family who helped me feel that I was important or special.
21 When I was growing up, I felt like there was someone in my family who wanted me to be a success.
22 When I was growing up, I had to wear dirty clothes.
23 When I was growing up, I lived with different people at different times (like different relatives, or foster families).

24 When I was growing up, I believe that one of my brothers or sisters may have been molested.
25 When I was growing up, I felt that I was loved.
26 When I was growing up, the other kids that I hung out with seemed like my "real family."
27 When I was growing up, I rarely had a father (or step-father) around the house.
28 When I was growing up, my parents tried to treat all of us children the same.
29 When I was growing up, I thought that my parents wished I had never been born.
30 When I was growing up, I got hit so hard by someone in my family that I had to see a doctor or go to the hospital.
31 When I was growing up, there was someone in my family who made sure that I stayed out of trouble.
32 When I was growing up, people in my family hit me so hard that it left me with bruises or marks.
33 When I was growing up, I belonged to a gang.
34 When I was growing up, the punishments I received seemed fair.
35 When I was growing up, I had sex with an adult, or with someone who was a lot older than me (someone at least 5 years older than me).
36 When I was growing up, there was someone older than myself. (like a teacher or parent) who was a positive role model for me.
37 When I was growing up, I was punished with a belt, a board, or a cord (or some other hard object).
38 When I was growing up, there was nothing I wanted to change about my family.
39 When I was growing up, people in my family got high or drunk.
40 When I was growing up, people in my family looked out for each other.
41 When I was growing up, my parents were divorced or separated.
42 When I was growing up, people in my family said hurtful or insulting things to me.
43 When I was growing up, I believe that I was physically abused.
44 When I was growing up, people in my family tried to keep me away from bad influences.
45 When I was growing up, there was an adult or other responsible person around the house when I was home.
46 When I was growing up, I got hit or beaten so hard that it was noticed by someone like a teacher, neighbor, or a doctor.
47 When I was growing up, people in my family seemed out of control.
48 When I was growing up, people in my family encouraged me to stay in school and get an education.
49 When I was growing up, I spent time out of the house and no one knew where I was.
50 When I was growing up, the punishments I received seemed cruel.
51 When I was growing up, I felt that someone in my family hated me.
52 When I was growing up, people in my family felt close to each other.

53 When I was growing up, someone tried to touch me in a sexual way, or tried to make me touch them.
54 When I was growing up, people in my family pushed me or shoved me.
55 When I was growing up, there was enough food in the house for everyone.
56 When I was growing up, everyone on my house had certain chores that they were supposed to do.
57 When I was growing up, someone threatened to hurt me or tell lies about me unless I did something sexual with them.
58 When I was growing up, I had the perfect childhood.
59 When I was growing up, I was frightened of being hurt by someone in my family.
60 When I was growing up, someone tried to make me do sexual things or watch sexual things.
61 When I was growing up, someone in my family believed in me.
62 When I was growing up, someone molested me.
63 When I was growing up, I believe that I was emotionally abused.
64 When I was growing up, people in my family didn't know or seem to care what I was doing.
65 When I was growing up, there was someone to take me to the doctor if I needed it.
66 When I was growing up, I had the best family in the world.
67 When I was growing up, people in my family had secrets that I wasn't supposed to share with anyone.
68 When I was growing up, I believe that I was sexually abused.
69 When I was growing up, my family was a source of strength and support.
70 When I was growing up, I saw or heard my mother physically threatened or hurt by my father (step-father) or her boyfriend.

Appendix E: Experiences in Close Relationships

Instructions: The following statements concern how you feel in romantic relationships. We are interested in how you generally experience relationships, not just in what is happening in a current relationship. Respond to each statement by indicating how much you agree or disagree with it.

Disagree Strongly **Neutral/Mixed** **Agree Strongly**

1 2 3 4 5

1 I prefer not to show a partner how I feel deep down.
2 I worry about being abandoned.
3 I am very comfortable being close to romantic partners.
4 I worry a lot about my relationships.
5 Just when my partner starts to get close to me I find myself pulling away.
6 I worry that romantic partners won't care about me as much as I care about them.
7 I get uncomfortable when a romantic partner wants to be very close.
8 I worry a fair amount about losing my partner.
9 I don't feel comfortable opening up to romantic partners.
10 I often wish that my partner's feelings for me were as strong as my feelings for him/her.
11 I want to get close to my partner, but I keep pulling back.
12 I often want to merge completely with romantic partners, and this sometimes scares them away.
13 I am nervous when partners get too close to me.
14 I worry about being alone.
15 I feel comfortable sharing my private thoughts and feelings with my partner.
16 My desire to be very close sometimes scares my partner away.
17 I try to avoid getting too close to my partner.
18 I need a lot of reassurance that I am loved by my partner.
19 I find it relatively easy to get close to my partner.
20 Sometimes I feel that I force my partners to show more feeling, more commitment.
21 I find it difficult to allow myself to depend on romantic partners.
22 I do not often worry about being abandoned.
23 I prefer not to be too close to romantic partners.
24 If I can't get my partner to show interest in me, I get upset or angry.
25 I tell my partner just about everything.
26 I find that my partner(s) don't want to get as close as I would like.
27 I usually discuss my problems and concerns with my partner.
28 When I'm not involved in a relationship, I feel somewhat anxious and insecure.
29 I feel comfortable depending on romantic partners.
30 I get frustrated when my partner is not around as much as I would like.
31 I don't mind asking romantic partners for comfort, advice, or help.
32 I get frustrated if romantic partners are not available when I need them.

33 It helps to turn to my romantic partner in times of need.
34 When romantic partners disapprove of me, I feel really bad about myself.
35 I turn to my partner for many things, including comfort and reassurance.
36 I resent it when my partner spends time away from me.

Appendix F: Relationships Questionnaire

Instructions: The following is concerned with your experiences in relationships. Please read the following four statements and choose the one that you feel best describes you. (Note: the words "close" and "intimate" refer to psychological or emotional closeness, not necessarily to sexual intimacy.)

A. I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others.
B. I am comfortable without close emotional relationships. It is very important for me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.
C. I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them.
D. It is easy for me to become emotionally close to others. I am comfortable depending on others and having others depend on me. I don't worry about being alone or having others not accept me.

	A	B	C	D
1	1	2	3	4

Appendix G: Defense Style Questionnaire- 40 item version

Instructions: Below are a series of statements about personal attitudes. Using the scale described below, please determine which response best reflects the way you feel regarding that statement.

Strongly Disagree neither Agree nor Disagree Strongly Agree

1 2 3 4 5

1 I get satisfaction from helping others and if this were taken away from me I would get depressed
2 I'm able to keep a problem out of my mind until I have time to deal with it
3 I work out my anxiety through doing something constructive and creative like painting or woodwork.
4 I am able to find good reasons for everything I do.
5 I'm able to laugh at myself pretty easily.
6 People tend to mistreat me.
7 If someone mugged me and stole my money, I'd rather he/she be helped than punished.
8 People say I tend to ignore unpleasant facts as if they didn't exist.
9 I ignore danger as if I was Superman/ Superwoman
10 I pride myself on my ability to cut people down to size
11 I often act impulsively when something is bothering me.
12 I get physically ill when things aren't going well for me.
13 I'm a very inhibited person.
14 I get more satisfaction from my fantasies than from my real life.
15 I've special talents that allow me to go through life with no problems
16 There are always good reasons when things don't work out for me.
17 I work more things out in my daydreams than in my real life.
18 I fear nothing.
19 Sometimes I think I'm an angel and other times I think I'm a devil.
20 I get openly aggressive when I feel hurt.
21 I always feel that someone I know is like a guardian angel.
22 As far as I'm concerned, people are either good or bad.
23 If my boss bugged me, I might make a mistake in my work or work more slowly to get back at him/her.
24 There is someone I know who can do anything and is absolutely fair and just
25 I can keep the lid on my feelings if letting them out would interfere with what I'm doing
26 I'm usually able to see the funny side of an otherwise painful predicament.
27 I get a headache when I have to do something I don't like.
28 I often find myself being very nice to people who by all rights I should be angry at.
29 I am sure I get a raw deal from life.
30 When I have to face a difficult situation I try to imagine what it will be like and plan ways to cope with it.
31 Doctors never really understand what is wrong with me.

32 After I fight for my rights, I tend to apologize for my assertiveness
33 When I'm depressed or anxious, eating makes me feel better.
34 I'm often told that I don't show my feelings
35 If I can predict that I'm going to be sad ahead of time, I can cope better.
36 No matter how much I complain, I never get a satisfactory response.
37 Often I find that I don't feel anything when the situation would seem to warrant strong emotions
38 Sticking to the task at hand keeps me from feeling depressed and anxious.
39 If I were in a crisis, I would seek out another person who had the same problem
40 If I have an aggressive thought, I feel the need to do something to compensate for it.

Appendix H: Tables

Table 1

Sample Sizes for Age, Ethnicity, and Gender

Variables	N	%
Age		
17-18	53	32.3%
19-20	98	59.8%
21-22	10	6.1%
23-25	0	0.0%
26 and older	3	1.8%
Ethnicity		
African-American	11	6.7%
Asian-American	6	3.7%
Caucasian	138	84.1%
Hispanic/Latino	4	2.4%
Other Ethnicity	5	3.1%
Gender		
Female	125	76.2%
Male	39	23.8%

Table 2

Correlations between Demographic Variables and Attachment and Defensive Maturity

Variables	Avoidance	Anxiety	Mature	Neurotic	Immature
1. Age	-.16*	.-25**	.21**	-.18*	-.25**
2. Female	-.03	.21**	.01	.06	-.10
3. African-American	-.07	-.07	-.11	-.12	-.09
4. Asian-American	-.01	.13	-.01	.05	.13
5. Caucasian	.09	.02	.07	.08	-.07
6. Hispanic/Latino	.03	-.10	.09	-.16*	.03
7. Other Ethnicity	-.12	.01	-.07	.09	.11

Note. all correlations are two-tailed.
* $p < .05$
** $p < .01$

Table 3

Correlations between Demographic Variables and Childhood Environmental Variables

Variables	Age	Female	Afr-Amer	Asn-Amer	Caucasian	Hisp/Lat	Other
Nurturance	.02	.03	.03	.03	-.04	.02	-.02
Parenting Style							
Authoritative	.09	-.02	.12	-.05	-.03	.08	-.12
Authoritarian	-.21**	.03	.08	.14	-.16*	-.09	.14
Permissive	.07	-.06	-.09	-.14	.10	.13	-.02
Parental Conflict							
Conf. Propert.	-.08	.14	-.07	-.09	.05	.07	.03
Self Blame	-.21**	-.13	-.04	.06	.01	-.07	.03
Threat to Self	-.11	.10	-.02	-.09	.04	-.02	.05
Maltreatment							
Emot. Abuse	-.16*	.12	-.18*	.07	.05	.03	.04
Emot. Neglect	-.11	-.05	-.06	.04	.04	.04	-.08
Phys. Abuse	-.12	.01	.03	-.03	-.02	-.06	.08
Phys. Neglect	-.08	-.20**	-.02	-.07	.08	-.00	-.06
Sexual Abuse	-.01	-.05	.02	-.02	.03	-.06	-.01

Note. all correlations are two-tailed.
* $p < .05$
** $p < .01$

Table 4

Summary of Multivariate Analysis of Variance with Childhood Environmental Variables as the Dependent Variables and Minority Status as the Independent Variable

Variables	df	F
Parental Nurturance	1, 158	.28
Parenting Style		
Authoritative	1, 158	.01
Authoritarian	1, 158	3.44
Permissive	1, 158	.97
Inter-parental Conflict		
Conflict Properties	1, 158	.58
Self Blame	1, 158	.01
Threat to Self	1, 158	.08
Child Maltreatment		
Emotional Abuse	1, 158	.74
Emotional Neglect	1, 158	.62
Physical Abuse	1, 158	.05
Physical Neglect	1, 158	1.18
Sexual Abuse	1, 158	.07

Note. The overall F was not significant ($F(12,147) = 0.76$)
All univariate F's were nonsignificant

Table 5

Summary of Multivariate Analysis of Variance with Attachment and Defensive Maturity as the Dependent Variables and Minority Status as the Independent Variable

Variables	df	F
Attachment		
Anxiety	5, 158	.05
Avoidance	5, 158	1.39
Defensive Maturity		
Mature	5, 158	.84
Neurotic	5, 158	1.13
Immature	5, 158	.80

Note. The overall F was not significant ($F(5,158) = 1.38$)
All univariate F's were nonsignificant

Table 6

Summary of Multivariate Analysis of Variance with Childhood Environmental Variables as the Dependent Variables and Gender as the Independent Variable

Variables	df	F
Parental Nurturance	1, 158	.09
Parenting Style		
Authoritative	1, 158	.11
Authoritarian	1, 158	.12
Permissive	1, 158	.34
Inter-parental Conflict		
Conflict Properties	1, 158	3.08
Self Blame	1, 158	2.77
Threat to Self	1, 158	1.50
Child Maltreatment		
Emotional Abuse	1, 158	2.23
Emotional Neglect	1, 158	.52
Physical Abuse	1, 158	.03
Physical Neglect	1, 158	6.71*
Sexual Abuse	1, 158	.27

Note. The overall F was significant ($F(12,147) = 1.93$, $p < .05$)
* $p < .05$.

Table 7

Summary of Multivariate Analysis of Variance with Attachment and Defensive Maturity as the Dependent Variables and Gender as the Independent Variable

Variables	df	F
Attachment		
Anxiety	5, 158	7.26**
Avoidance	5, 158	.16
Defensive Maturity		
Mature	5, 158	.01
Neurotic	5, 158	.48
Immature	5, 158	1.79

Note. The overall F was significant ($F(5,158) = 3.36$)

** $p < .01$.

Table 8

Descriptive Statistics for Childhood Environmental Variables, Attachment, and Defensive Functioning

	N	Minimum	Maximum	M	SD
Parental Nurturance	162	1.17	5.00	4.07	.70
Parenting Style					
Authoritative	163	1.35	5.00	3.51	.70
Authoritarian	163	1.20	4.90	2.99	.65
Permissive	163	1.00	3.65	2.41	.49
Inter-parental Conflict					
Conflict Properties	163	1.00	3.00	1.70	.52
Self Blame	163	1.00	2.56	1.20	.35
Threat to Self	163	1.00	2.83	1.60	.40
Child Maltreatment					
Emotional Abuse	164	1.00	4.92	2.05	.76
Emotional Neglect	164	1.00	4.06	1.60	.63
Physical Abuse	164	1.00	4.71	1.36	.60
Physical Neglect	164	1.00	3.88	1.25	.43
Sexual Abuse	164	1.00	5.00	1.22	.62
Attachment					
Anxiety	164	1.22	4.61	2.90	.76
Avoidance	164	1.00	4.39	2.28	.79
Defensive Maturity					
Mature	164	1.00	4.71	3.32	.57
Neurotic	164	2.00	5.00	3.16	.55
Immature	164	1.10	3.70	2.45	.50

Table 9

Correlations between Childhood Environmental Variables and Adult Attachment

Variables	Avoidance	Anxiety
Parental Nurturance	-.26** [a]	-.11 [†, b]
Parenting Style		
Authoritative	-.19** [a]	-.16* [b]
Authoritarian	.01 [a, c]	.16* [b, c]
Permissive	.12 [†, a]	.01 [b]
Inter-parental Conflict		
Conflict Properties	.13 [a]	.12 [†, b]
Self Blame	.07 [†, a, c]	.12 [b, c]
Threat to Self	.18* [a]	.21** [b]
Child Maltreatment		
Emotional Abuse		
Emotional Neglect	.23** [a]	.13* [b]
Physical Abuse	.12 [a]	.12 [b]
Physical Neglect	.17* [a]	.04 [b, d]
Sexual Abuse	.08 [a]	.08 [b]

† = two-tailed significance
a = controlling for anxiety
b = controlling for avoidance
c = controlling for age
d = controlling for gender
* $p < .05$.
** $p < .01$.

Table 10

Correlations between Adult Attachment and Defensive Functioning

Variables	Avoidance	Anxiety
Defensive Maturity		
Mature	-.18* [a, c]	-.21** [b, c]
Neurotic	-.06 [a, c]	.16* [b, c]
Immature	.36** [a, c]	.36** [b, c]
Specific Immature Defenses		
Acting Out	.01 [a, c]	.25** [b, c]
Dissociation	.07 [a, c]	-.14* [b, c]
Somatization	-.01 [a, c]	.33** [b, c]
Fantasy	.28** [a, c]	.32** [b, c]
Passive Aggression	.25** [a, c]	.12 [b, c]
Projection	.10 [a, c]	.37** [b, c]

a = controlling for anxiety
b = controlling for avoidance
c = controlling for age
* $p < .05$
** $p < .01$

Table 11

Intercorrelations between Childhood Environment Variables

Variables	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Nurturance Par Style	.64	-.30	-.04	-.34	-.32	-.39	-.60	-.64	-.47	-.44	-.35
2.Auth-ive	--	-.40	.03	-.37	-.18	-.38	-.64	-.64	-.45	-.36	-.26
3.Auth-ian	--	--	-.42	.23	.23	.24	.41	.26	.39	.09	-.03
4.Per-ive	--	--	--	.04	-.09	.10	.02	.09	-.08	.16	.12
Int-par Conflict											
5.Conf-Prop	--	--	--	--	.17	.59	.61	.39	.41	.20	.13
6.Self Blame	--	--	--	--	--	.29	.29	.27	.27	.20	.07
7.Threat-Self	--	--	--	--	--	--	.49	.32	.36	.25	.11
Maltreatment											
8.Emt-Abuse	--	--	--	--	--	--	--	.75	.70	.46	.37
9.Emt-Negl	--	--	--	--	--	--	--	--	.56	.67	.42
10.Phy-Abuse	--	--	--	--	--	--	--	--	--	.59	.43
11.Phy-Negl	--	--	--	--	--	--	--	--	--	--	.51
12.Sex-Abuse	--	--	--	--	--	--	--	--	--	--	--

Table 12

Intercorrelations of Recomputed Child Environment Variables

Variables	2	3	4	5	6	7
1. Positive Parenting	-.36	-.01	-.30	-.39	-.71	-.35
2. Authoritarian Parenting	--	-.42	.23	.24	.35	-.03
3. Permissive Parenting		--	-.09	.06	.06	.12
4. Self-Blame			--	.19	.30	.07
5. Threat/Conf. properties				--	.53	.14
6. Phys./Emot. maltreat.					--	.48
7. Sexual Abuse						--

Table 13

Summary of Hierarchical Regression Analysis for Age, Anxiety, and Childhood Environment variables Predicting Avoidance

	Variables	β	ΔR^2
Step 1			
	Age	-.10	.02
Step 2			
	Anxiety	.20*	.06
Step 3			
	Positive parenting	-.20	.08
	Authoritarian parenting	-.08	
	Permissive parenting	.08	
	Exposure/threat IPC	.02	
	Self-blame IPC	.00	
	Phys./emot. maltreatment	.13	
	Sexual abuse	-.07	

Note. Beta values are for full model.
*$p < .05$
**$p < .01$

Table 14

Summary of Hierarchical Regression Analysis for Age, Anxiety, and Childhood Environment variables Predicting Avoidance

	Variables	β	ΔR^2
Step 1			
	Age	-.10	.02
Step 2			
	Anxiety	.20*	.06
Step 3			
	Positive parenting	-.20	.08
	Authoritarian parenting	-.08	
	Permissive parenting	.08	
	Exposure/threat IPC	.02	
	Phys./emot. maltreatment	.13	
	Sexual abuse	-.07	

Note. Beta values are for full model.
*$p < .05$
**$p < .01$

Table 15

Summary of Hierarchical Regression Analysis for Age, Anxiety, and Childhood Environment variables Predicting Avoidance

	Variables	β	ΔR^2
Step 1			
	Age	-.11	.03
Step 2			
	Anxiety	.18*	.06
Step 3			
	Positive parenting	-.21*	.09
	Authoritarian parenting	-.07	
	Permissive parenting	.09	
	Phys./emot. maltreatment	.13	
	Sexual abuse	-.07	

Note. Beta values are for full model.
*$p < .05$
**$p < .01$

Table 16

Summary of Hierarchical Regression Analysis for Age, Anxiety, and Childhood Environment variables Predicting Avoidance

	Variables	β	ΔR^2
Step 1			
	Age	-.10	.03
Step 2			
	Anxiety	.18*	.06
Step 3			
	Positive parenting	-.20	.08
	Permissive parenting	.12	
	Phys./emot. maltreatment	.11	
	Sexual abuse	-.06	

Note. Beta values are for full model.
*$p < .05$
**$p < .01$

Table 17

Summary of Hierarchical Regression Analysis for Age, Anxiety, and Childhood Environment variables Predicting Avoidance

	Variables	β	ΔR^2
Step 1			
	Age	-.10	.03
Step 2			
	Anxiety	.18*	.06
Step 3			
	Positive parenting	-.20	.08
	Permissive parenting	.12	
	Phys./emot. maltreatment	.09	

Note. Beta values are for full model.
*$p < .05$
**$p < .01$

Table 18

Summary of Hierarchical Regression Analysis for Age, Anxiety, and Childhood Environment variables Predicting Avoidance

	Variables	β	ΔR^2
Step 1			
	Age	-.11	.03
Step 2			
	Anxiety	.19*	.06
Step 3			
	Positive parenting	-.26**	.08
	Permissive parenting	.12	

Note. Beta values are for full model.
*$p < .05$
**$p < .01$

Table 19

Summary of Hierarchical Regression Analysis for Age, Anxiety, and Positive Parenting Predicting Avoidance

	Variables	β	ΔR^2
Step 1			
	Age	-.10	.03
Step 2			
	Anxiety	.20*	.06
Step 3			
	Positive parenting	-.25**	.06

Note. Beta values are for full model.
*$p < .05$
**$p < .01$

Table 20

Summary of Hierarchical Regression Analysis for Age, Avoidance, and Childhood Environment variables Predicting Anxiety

	Variables	β	ΔR^2
Step 1			
	Age	-.15*	.10
	Gender	.22**	
Step 2			
	Avoidance	.20*	.06
Step 3			
	Positive parenting	.02	.06
	Authoritarian parenting	.16	
	Permissive parenting	.11	
	Exposure/threat IPC	.00	
	Self-blame IPC	.10	
	Phys./emot. maltreatment	.10	
	Sexual abuse	.04	

Note. Beta values are for full model.
*$p < .05$
**$p < .01$

Table 21

Summary of Hierarchical Regression Analysis for Age, Avoidance, and Childhood Environment variables Predicting Anxiety

	Variables	β	ΔR^2
Step 1			
	Age	-.15*	.10
	Gender	.22**	
Step 2			
	Avoidance	.20**	.06
Step 3			
	Positive parenting	.02	.06
	Authoritarian parenting	.16	
	Permissive parenting	.11	
	Self-blame IPC	.10	
	Phys./emot. maltreatment	.10	
	Sexual abuse	.04	

Note. Beta values are for full model.
*$p < .05$
**$p < .01$

Table 22

Summary of Hierarchical Regression Analysis for Age, Avoidance, and Childhood Environment variables Predicting Anxiety

	Variables	β	ΔR^2
Step 1			
	Age	-.16*	.10
	Gender	.22**	
Step 2			
	Avoidance	.20**	.06
Step 3			
	Authoritarian parenting	.15	.06
	Permissive parenting	.11	
	Self-blame IPC	.10	
	Phys./emot. maltreatment	.08	
	Sexual abuse	.04	

Note. Beta values are for full model.
*$p < .05$
**$p < .01$

Table 23

Summary of Hierarchical Regression Analysis for Age, Avoidance, and Childhood Environment variables Predicting Anxiety

	Variables	β	ΔR^2
Step 1			
	Age	-.15*	.10
	Gender	.22**	
Step 2			
	Avoidance	.20*	.06
Step 3			
	Authoritarian parenting	.15	.06
	Permissive parenting	.11	
	Self-blame IPC	.10	
	Phys./emot. maltreatment	.10	

Note. Beta values are for full model.
*$p < .05$
**$p < .01$

Table 24

Summary of Hierarchical Regression Analysis for Age, Avoidance, and Childhood Environment variables Predicting Anxiety

	Variables	β	ΔR^2
Step 1			
	Age	-.17*	.10
	Gender	.21**	
Step 2			
	Avoidance	.19*	.06
Step 3			
	Authoritarian parenting	.15	.04
	Permissive parenting	.09	
	Phys./emot. maltreatment	.12	

Note. Beta values are for full model.
*$p < .05$
**$p < .01$

Table 25

Summary of Hierarchical Regression Analysis for Age, Avoidance, and Childhood Environment variables Predicting Anxiety

	Variables	β	ΔR^2
Step 1			
	Age	-.17*	.10
	Gender	.21**	
Step 2			
	Avoidance	.20*	.06
Step 3			
	Authoritarian parenting	.10	.04
	Phys./emot. maltreatment	.14	

Note. Beta values are for full model.
*$p < .05$
**$p < .01$

Table 26

Summary of Hierarchical Regression Analysis for Age, Avoidance, and Physical/Emotional Maltreatment Predicting Anxiety

	Variables	β	ΔR^2
Step 1			
	Age	-.19*	.10
	Gender	.21**	
Step 2			
	Avoidance	.20**	.06
Step 3			
	Phys./emot. maltreatment	.16*	.02

Note. Beta values are for full model.
*$p < .05$
**$p < .01$

Table 27

Summary of Hierarchical Regression Analysis for Age, Avoidance, and Anxiety Predicting Mature Defenses

	Variables	β	ΔR^2
Step 1			
	Age	.13	.04
Step 2			
	Anxiety	-.21**	.09
	Avoidance	-.18*	

Note. Beta values are for full model.
*$p < .05$
**$p < .01$

Table 28

Summary of Hierarchical Regression Analysis for Age, Avoidance, and Anxiety Predicting Neurotic Defenses

	Variables	β	ΔR^2
Step 1			
	Age	-.15	.03
Step 2			
	Anxiety	.17*	.03
	Avoidance	-.07	

Note. Beta values are for full model.
*$p < .05$
**$p < .01$

Table 29

Summary of Hierarchical Regression Analysis for Age, Avoidance, and Anxiety Predicting Immature Defenses

	Variables	β	ΔR^2
Step 1			
	Age	-.11	.06
Step 2			
	Anxiety	.34**	.27
	Avoidance	.34**	

Note. Beta values are for full model.
*$p < .05$
**$p < .01$

Appendix I: Figures

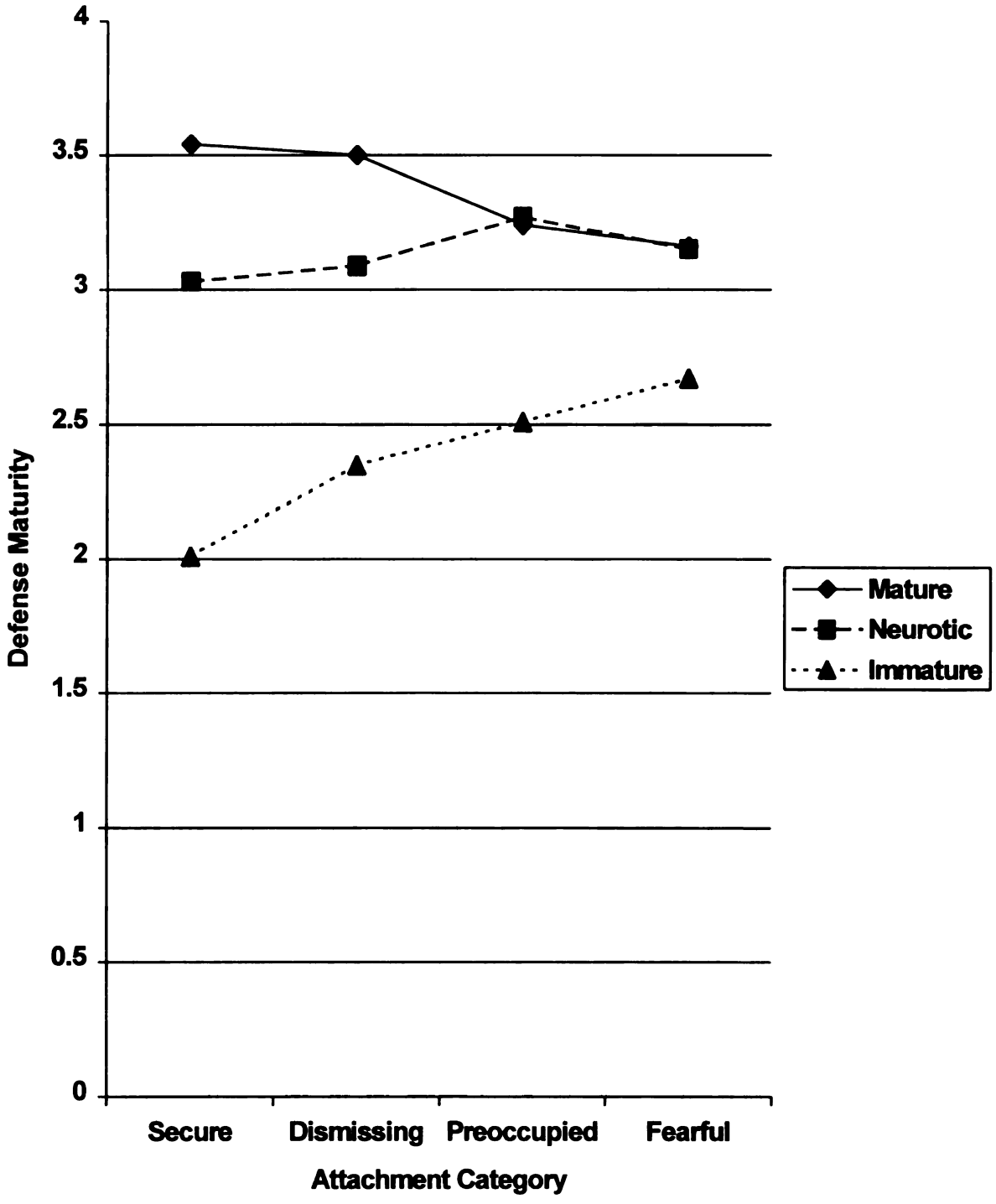

Figure 1: Defense Maturity by Attachment, Controlling for Age

References

Ainsworth, M. D., Blehar, M. C., Waters, E., & Wall, S. (1978). Patterns of Attachment: Assessed in the Strange Situation and at Home. Hillsdale, N.J.: Lawrence Erlbaum Associates, Inc.

Alexander, P. C. (1992). Application of attachment theory to the study of sexual abuse. Journal of Consulting and Clinical Psychology, 60, 183-195.

Andrews, G., Singh, M., & Bond, M. (1993). The defense style questionnaire. The Journal of Nervous and Mental Disease, 181, 246-256.

Bartholomew, K., & Horowitz, L.M. (1991). Attachment styles among young adults: A test of a four-category model. Journal of Personality and Social Psychology, 61, 236-244.

Baumrind, D. (1971). Current patterns of parental authority. Developmental Psychology Monograph, 4, 1-103.

Bernstein, D.P., Fink, L, Handelsman, L, Foote, J., Lovejoy, M., Wenzel, K., Sapareto, E., & Ruggiero, J. (1993). Initial reliability and validity of a new retrospective measure of child abuse and neglect. American Journal of Psychiatry, 151, 1132-1136.

Bickham, N.L, & Fiese, B.H. (1997). Extension of the children's perceptions of interparental conflict scale for use with late adolescents. Journal of Family Psychology, 11, 246-250.

Bond, M., Gardner, S. T., Christian, J., & Sigal, J. J. (1983). Empirical study of self-rated defense styles. Archives of General Psychiatry, 40, 333-338.

Bowlby, J. (1969). Attachment and loss: Vol. 1. Attachment. London: Hogarth Press.

Bowlby, J. (1973). Attachment and loss: Vol. 2. Separation. New York: Basic Books.

Brennan, J., Andrews, G., Morris-Yates, A., & Pollock, C. (1990). An examination of defense style in parents who abuse children. The Journal of Nervous and Mental Disease, 178, 592-595.

Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult attachment: an integrative overview. In J. A. Simpson & W. S. Rholes (Eds.), Attachment theory and close relationships. New York: Guilford Press.

Brennan, K.A., & Shaver, P.R. (1998). Attachment styles and personality disorders: Their connections to each other and to parental divorce, parental death, and perceptions of parental caregiving. Journal of Personality, 66, 835-878.

Buehler, C., Krishnakumar, A., Stone, G., Anthony, C., Pemberton, S., & Gerard, J. (1998). Interparental conflict styles and youth problem behaviors: A two-sample replication study. Journal of Marriage and the Family, 60, 119 - 132.

Buri, J.R. (1989). Self-esteem and appraisals of parental behavior. Journal of Adolescent Research, 4, 33-49.

Buri, J.R. (1991). Parental Authority Questionnaire. Journal of Personality Assessment, 57, 110-119.

Buri, J.R., Kirchner, P.A., & Walsh, J.M. (1987). Familial correlates of self-esteem in young American adults. The Journal of Social Psychology, 127, 583-588.

Buri, J. R., Louiselle, P. A., Misukanis, T. M., & Mueller, R. A. (1988). Effects of parental authoritarianism and authoritativeness on self-esteem. Personality and Social Psychology Bulletin, 14, 271-282.

Buri, J.R., Murphy, P., Richtsmeier, L.M., & Komar, K.K. (1992). Stability of parental nurturance as a salient predictor of self-esteem. Psychological Reports, 71, 535-543.

Cozzarelli, C., Sumer, N., & Major, B. (1998). Mental models of attachment and coping with abortion. Journal of Personality and Social Psychology, 74, 453-467.

Cramer, P. (1997). Identity, personality, and defense mechanisms: An observer-based study. Journal of Research in Personality, 31, 58-77.

Crittenden, P.M. (1992). Children's strategies for coping with adverse home environments: An interpretation using attachment theory. Child Abuse & Neglect, 16, 329-343.

Crittenden, P.M., Partridge, M.F., & Claussen, A.H. (1991). Family patterns of relationships in normative and dysfunctional families. Development and Psychopathology, 3, 491-512.

Diehl, M., Elnick, A. B., Bourbeau, L. S., & Labouvie-Vief, G. (1998). Adult attachment styles: their relations to family context and personality. Journal of Personality and Social Psychology, 74, 1656-1669.

DiTomasso, M.J., & Routh, D.K. (1993). Recall of abuse in childhood and three measures of dissociation. Child Abuse & Neglect, 17, 477-485.

Erickson, S., Feldman, S.S., & Steiner, M. (1997). Defense reactions and coping strategies in normal adolescents. Child Psychiatry and Human Development, 28, 45-56.

Feeney, J., & Noller, P. (1996). Adult Attachment. London: Sage.

Fonagy, P., Steele, M., Steele, H., Target, M., Gerger, A., Leigh, T., Kennedy, R., & Mattoon, G. (1996). The relation of attachment status, psychiatric classification, and

response to psychotherapy. Journal of Consulting and Clinical Psychology, 64, 22-31.

Fraley, R.C., & Shaver, P.R. (1997). Adult attachment and the suppression of unwanted thoughts. Journal of Personality and Social Psychology, 73, 1080-1091.

Freud, A. (1946). The ego and the mechanisms of defence. New York: International Universities Press.

Fuendeling, J. (1996, August). Exploration of an ambivalent cluster within the preoccupied and fearful attachment patterns. Poster session presented at the International Conference on Personal Relationships, Banff, Canada.

Gauthier, L, Stollak, G., Messé, L, & Aronoff, J. (1996). Recall of childhood neglect and physical abuse as differential predictors of current psychological functioning. Child Abuse & Neglect, 7, 549-559.

Griffin, D., & Bartholomew, K. (1994). Models of the self and other: Fundamental dimensions underlying measures of adult attachment. Journal of Personality and Social Psychology, 67, 430-445.

Grych, J.H., & Fincham, F.D. (1990). Marital conflict and children's adjustment: A cognitive-contextual framework. Psychological Bulletin, 108(2), 267 - 290.

Grych, J. H., Seid, M., & Fincham, F. D. (1992). Assessing marital conflict from the child's perspective: The children's perception of interparental conflict scale. Child Development, 63, 558-572.

Guldberg, C.A., Hoglend, P., & Perry, J.C. (1993). Scientific methods for assessing psychological defences. Nordic Journal of Psychology, 47, 435-446.

Hazan, C. & Shaver, P. (1987). Romantic love conceived as an attachment process. Journal of Personality and Social Psychology, 52, 511-524.

Kendall-Tackett, K.A., Williams, L.M., & Finkelhor, D. (1993). Impact of sexual abuse on children: A review and synthesis of recent empirical studies. Psychological Bulletin, 113, 164-180.

Kobak, J. J., & Sceery, A. (1988). Attachment in late adolescence: Working models, affect regulation, and representations of self and others. Child Development, 59, 135-146.

Lopez, F.G., Fuendeling, J., Thomas, K., & Sagula, D. (1997). An attachment-theoretical perspective on the use of splitting defences. Counselling Psychology Quarterly, 10, 461-472.

Lopez, F. G., Gover, M. R., Leskela, J., Sauer, E. M., Schirmer, L., & Wyssmann, J. (1997). Attachment styles, shame, guilt, and collaborative problem-solving orientations. Personal Relationships, 4, 187-199.

Lyons-Ruth, K., & Block, D. (1996). The disturbed caregiving system: Relations among childhood trauma, maternal caregiving, and infant affect and attachment. Infant Mental Health Journal, 17, 257-275.

Main, M. & Cassidy, J. (1988). Categories of response to reunion with the parent at age 6: Predictable from infant attachment classifications and stable over a 1-month period. Developmental Psychology, 24, 415-426.

Main, M., Kaplan, R., & Cassidy, J. (1985). Security in infancy, childhood and adulthood: A move to the level of representation. Monographs of the Society for Research in Child Development, 50, (1-2).

Mikulincer, M. (1998). Adult attachment style and affect regulation: strategic variations in self-appraisals. Journal of Personality and Social Psychology, 75, 420-435.

Pawlak, J.L, & Klein, H.A. (1997). Parental conflict and self-esteem: The rest of the story. The Journal of Genetic Psychology, 158, 303-313.

Rind, B., Tromovitch, P., & Bauserman, R. (1998). A meta-analytic examination of assumed properties of child sexual abuse using college samples. Psychological Bulletin, 124, 22-53.

Schore, A. (1996). The experience-dependent maturation of a regulating system in the orbital prefrontal cortex and the origin of developmental psychopathology. Development and Psychopathology, 8, 59-87.

Simpson, J.A. (1990). Influence of attachment styles on romantic relationships. Journal of Personality and Social Psychology, 59, 971-980.

Smith, C., Thienemann, & Steiner, H. (1992). Defense style and adaptation in adolescents with depressions and eating disorders. Acta Paedopsychiatrica, 55, 185-186.

Spangler, G., & Grossmann, K.E. (1993). Biobehavioral organization in securely and insecurely attached infants. Child Development, 64, 1439 - 1450.

Stalker, C.A., & Davies, F. (1995). Attachment organization and adaptation in sexually-abused women. Canadian Journal of Psychiatry, 40, 234-240.

Steiner, H., & Feldman, S.S. (1995). Two approaches to the measurement of adaptive style: Comparison of normal, psychosomatically ill, and delinquent adolescents. Journal of the American Academy of Child and Adolescent Psychiatry, 34, 180-190.

Tauschke, E., Merskey, H., & Helmes, E. (1990). Psychological defence mechanisms in patients with pain. Pain, 40, 161-170.

Tuulio-Henrikson, A., Poikolainen, K., Aalto-Setala, T., & Lonnqvist, J. (1997). Psychological defense styles in late adolescence and young adulthood: A follow-up

study. Journal of the American Academy of Child and Adolescent Psychiatry, 36, 1148-1153.

Ungerer, J.A., Waters, B., Barnett, B., & Dolby, R. (1997). Defense style and adjustment in interpersonal relationships. Journal of Research in Personality, 31, 375-384.

Vaillant, G. (1977). Adaptation to life. Cambridge, MA: Cambridge University Press.

Vaillant, G. (1993). Wisdom of the ego. Cambridge, MA: Cambridge University Press.

Weaver, T.L, & Clum, G.A. (1993). Early family environments and traumatic experiences associated with Borderline Personality Disorder. Journal of Consulting and Clinical Psychology, 61, 1068-1075.

Weinberger, D. A. (1989). The construct validity of the repressive coping style. In Singer, J. L. (Ed.), Repression and dissociation. (pp. 337-386). Chicago: University of Chicago Press.