CHILDHOOD Bereavement and Parents’ Relationship with Children

Karen M. Benson

Thesis Prepared for the Degree of
MASTER OF SCIENCE

UNIVERSITY OF NORTH TEXAS
May 2012

APPROVED:
Shelley A. Riggs, Major Professor
Bert Hayslip Jr., Committee Member
Vicki Campbell, Committee Member and Chair of the Department of Psychology
James D. Meernik, Acting Dean of the Toulouse Graduate School
Benson, Karen M. *Childhood Bereavement and Parents’ Relationship with Children.*
Master of Science (Psychology), May 2012, 72 pp., 7 tables, 4 illustrations, references, 112 titles.

It has long been recognized that childhood bereavement is a risk factor for depression in adulthood. Research also has consistently demonstrated that parental depression is linked to poor parent-child relationship quality. The current study examined whether bereavement in childhood increases likelihood of current depressive symptoms among parents and explored whether this vulnerability in the parent then alters the quality of the parent-child relationship. Archival data for a sample of 86 families (N=176 parents) are drawn from the Family & Kid Connection project led by Dr. Shelley Riggs. Instruments utilized include the Background Information Questionnaire, the Symptom Assessment-45 Questionnaire, and the Parenting Relationship Questionnaire. Using the Actor-Partner Interdependence Model, Multilevel Modeling procedures explored the hypothesis that parental depression mediates the association between parents’ childhood bereavement and their perception of the parent-child relationship. Results show a significant relationship between parental (actor) depressive symptoms and parent-child attachment, indicating the need for therapeutic interventions targeting the parent-child relationship, and not just parents, for parents suffering from depression.
TABLE OF CONTENTS

| Chapters |
|-----------------|-----------------|
| Chapters        |                  |
| 1. LITERATURE REVIEW | Page 1          |
| Introduction    |                  |
| Attachment Theory|                |
| Childhood Attachment |            |
| Attachment Stability and Adult Attachment |           |
| Attachment Disorganization |       |
| Parental Loss & Attachment Disorganization |     |
| Bereavement & Grief |            |
| Consequences of Bereavement/Grief |           |
| Childhood Bereavement |           |
| Adult Depression |                  |
| Parental Loss as a Precursor to Depression |           |
| Parental Depression and the Parent-Child Relationship |         |
| Caregiver Depression and Relationship Perceptions |       |
| The Current Study |                  |
| 2. METHOD | Page 30         |
| Sample |                  |
| Instruments |            |
| Procedures |                 |
| 3. RESULTS | Page 34         |
| 4. DISCUSSION | Page 37         |
| APPENDICES | Page 50         |
| REFERENCES | Page 57         |
LIST OF TABLES

Table 1 Characteristics of Parents in Sample .................................................................45
Table 2 Number of Siblings ..........................................................................................45
Table 3 Individual Lost in Childhood .........................................................................46
Table 4 Correlations, Means, Standard Deviations, T-tests, ANOVAs .........................47
Table 5 Multilevel Models for Childhood Loss/Depression Predicting Parent-Child Attachment ....48
Table 6 Multilevel Model for Childhood Loss Predicting Depression .............................48
Table 7 Final Trimmed Model Predicting Parent-Child Attachment ...............................49
LIST OF FIGURES

Figure 1 Childhood bereavement associated with parent-child attachment……………………43
Figure 2 Childhood bereavement associated with adult depression…………………………..43
Figure 3 Actor/Partner depressive symptoms associated with poorer actor parent-child attachment relationship quality .................................................................43
Figure 4 Mediation model using MedGraph (Jose, 2003) with depressive symptoms mediating link between childhood bereavement and parent-child relationship quality………………..44
CHAPTER 1

INTRODUCTION AND LITERATURE REVIEW

The role of early parent-child relationships in creating a foundation for future relationships has been well documented (Bowlby, 1944, 1969, 1980; Hammen, 2003; Parkes, 2006; Stroebe, Schut & Stroebe, 2005; Thompson, 1999). Bowlby (1969) wrote extensively about the attachment behavioral system and proposed that children possess a continuing goal of maintaining proximity to an attachment figure, which is most often a parent. While Bowlby (1988) emphasized the importance of attachment bonds in childhood, he maintained that the attachment system continues to function across the life span, influencing help-seeking behaviors and other coping strategies during times of stress.

The parent-child relationship serves as the context for the development of expectations regarding attachment figure availability (Bowlby, 1944). Caregiver absence has negative consequences for children’s emotional development, leaving them vulnerable to difficulties in adulthood (Kobak, 1999). In his earliest study of 88 children institutionalized for stealing and other offenses, Bowlby (1944) demonstrated that those children deemed “affectionless,” had all been separated from their parents for 6 months or more due to parental death, illness or other family disruption. This finding drew attention to the consequences of prolonged separation from parents, which disrupts the attachment bond, in contrast to an environment facilitated by the parent-child relationship that allows children to internalize and process their emotional experiences within a safe and caring relationship (Bowlby, 1944; Kobak, 1999).

The capacity to form an emotional bond with an attachment figure develops in childhood and further extends into adult relationships (Bowlby, 1969, 1973, 1980; Thompson, 1999). Internal working models developed in the context of early attachment relationships include
mental representations of the availability or dependability of attachment figures (Kobak, 1999). These internal working models allow children to regulate emotions, develop capacity for self-representation and organize expectations and responses to the behaviors of others throughout life (Bowlby, 1969, 1973, 1980). Optimally, internal working models provide useful templates for emotion regulation and stress management. However, when a positive relational context is lacking, insecure models can develop that may be adaptive for their circumstances early in life but not in adulthood. Persistence of such maladaptive internal working models increases vulnerability to mental illness and relational disturbances in adulthood (Bowlby, 1969, 1979).

Because early interactions with parents influence later relationships, it is useful to consider factors within the parent-child dyad that may facilitate or impede children’s development of healthy relationships in the future. The purpose of the current study is to investigate the intergenerational effects of childhood bereavement. Specifically, this study hypothesizes that an attachment loss in childhood will be significantly related to the individual’s susceptibility to depression in adulthood, as well as their subsequent parenting relationship with their own children. Given that depression in parents has been shown to detrimentally influence parent-child relationships (Hasin, Goodwin, Stinson, & Grant, 2005; Knitzer, Theberge, & Johnson, 2008; Lyons-Ruth, Connell, Grunebaum & Botein, 1990), the current study also tested the hypothesis that depression mediates the association between parents’ childhood bereavement and their relationship with their own child. Knowledge about how parents’ loss history and psychological distress affect their ability to build and maintain positive relationships with their children can inform interventions for depressed parents and their children. This chapter reviews the literature on the role of attachment processes in the development of behavior from childhood through adulthood, provide an overview of bereavement in childhood and its consequences, and discuss
how adult depression can influence parental perceptions of parent-child relationship quality.

Attachment Theory

Childhood attachment. Drawing on ethological and object relations theories, Bowlby (1969, 1973) proposed that the attachment system develops alongside other biological and exploratory systems. Because its primary function is protection, the attachment system is activated in children when they perceive psychological or physical threats. In times of stress, the attachment system promotes children’s efforts to achieve proximity to a primary attachment figure, such as a parent or caregiver, for support and protection. Bowlby (1969, 1973) theorized that the early relationship and continued interaction with a primary attachment figure facilitates the development of an “internal working model” of the self, others and relationships. These internal working models support children’s capacity to predict and interpret the behavior, feelings and thoughts of self and others. Such models also facilitate emotion regulation. Attachment researchers have identified specific patterns of attachment behaviors thought to correspond to different internal working models of self, others and relationships (Ainsworth, Blehar, Waters, & Wall, 1978).

Security of attachment in infants can be determined by a brief laboratory assessment, the Strange Situation procedure (Ainsworth et al., 1978), which utilizes observations of infant behavior during interactions with an attachment figure, such as a parent or caregiver, in order to identify attachment patterns. The Strange Situation procedure entails seven 3-minute periods in which the child is placed in an unfamiliar room, allowed to play with toys and is free to explore. A stranger is also introduced and the infant is separated from the mother (or other attachment figure) 2 times during the brief procedure. Observations are then coded for infant attachment behaviors, with particular attention paid to the infant’s reunions with the mother (or other
Infants are coded as secure when they are observed to actively seek proximity and interaction or contact with the attachment figure upon reunion. Insecure attachment is coded as either (a) avoidant, when the infant avoids or ignores the attachment figure upon reunion, (b) anxious/ambivalent, when the infant both seeks proximity to the attachment figure and resists interaction with the attachment figure upon reunion, and/or (c) disorganized when the infant does not demonstrate a coherent strategy of attachment behaviors. Infant attachment behavior observed during the Strange Situation is related to the sensitivity of parental behavior toward infant expressions of need (De Wolff & van IJzendoorn, 1997). Attachment behavior observed in the Strange Situation has been shown to be related to the competency of children in multiple circumstances (Weinfield, Ogawa, & Sroufe, 1997).

Children with secure attachment styles possess positive models of self and others and therefore actively seek proximity to attachment figures in times of stress, behavior thought to result from consistently sensitive and responsive parenting (DeWolff & van IJzendoorn, 1997). Children and adolescents with secure attachment histories demonstrate the capacity to flexibly express and control emotions in socially appropriate ways, exhibit more positive relationships with adults and peers, and report greater trust in others and more satisfaction with interpersonal relationships than those with insecure attachment histories (see Kennedy & Kennedy, 2004, for a review).

Children with anxious/ambivalent attachment styles harbor a negative model of self and experience anxiety about their environment (Riggs, 2010). This style is thought to develop due to inconsistent availability of the primary attachment figure and can lead children to exhibit clinging and/or rejecting behaviors toward attachment figures when threatened (Ainsworth &
Bell, 1970). Anxious/ambivalent children and adolescents display more emotional reactivity under stress, greater reluctance to distance self from attachment figures in new situations, and higher incidence of mood disordered traits than those in other secure and insecure attachment classifications (see Kennedy & Kennedy, 2004, for a review).

Children with avoidant attachment styles typically see themselves as independent and tend to avoid attachment figures because they do not believe they are trustworthy (Bartholomew, 1990). Such a negative view of others is thought to develop as the result of consistent rejection of the child’s endeavors to attain caring, protection and support from the primary attachment figure (Riggs, 2010). Children and adolescents with avoidant attachment histories are more likely to display increased distancing strategies under stress, more frequently fail to develop trusting support relationships and tend to exhibit increased externalizing symptoms such as bullying and lying than those with other attachment organizations (see Kennedy & Kennedy, 2004, for a review).

Children with disorganized attachment styles display no coherent attachment strategy, are fearful of the environment and possess both negative models of self and others (Riggs, 2010). Disorganized approaches in response to fear are most often found in children exposed to either maltreatment by caregivers or caregivers coping with their own unresolved trauma or loss (Zilberstein & Messer, 2010). Such threatening and unavailable caregivers, who are both a source of fear and the main source of safety for children, are thought to place children in the difficult position of relying on the person causing their distress for comfort, which could result in disorganized attachment. Children and adolescents with disorganized attachment histories exhibit poor emotional regulation or emotional over-control. These maladaptive emotional reactions can manifest in many different forms, including physical aggression, verbal hostility, problems with
expressing emotion, difficulty handling conflict and/or behavioral withdrawal (see Kennedy & Kennedy, 2004, for a review).

*Attachment stability and adult attachment.* Bowlby (1988) proposed that over time, infant attachment behaviors give rise to increasingly more sophisticated internal representations of the world and the important attachment figures in it. This progression from sensorimotor to mental representation of attachment is made possible by cognitive growth that occurs during development. Internal representations of attachment become organized over time and guide the behavior of older children and young adults automatically without the need to assess the level of threat or safety and availability of attachment figures in each new situation (Waters, Hamilton, & Weinfield, 2000). As such, children’s early experiences continue to affect functioning into adulthood. Collins and Sroufe (1999) proposed that resultant mental representations of self and others, along with consequential strategies for emotional regulation, supply a template model for the prediction and interpretation of, and response to, the behaviors of others.

In an effort to understand childhood attachment experiences and the meaning such experiences hold for individuals in adulthood, Main and colleagues developed a semi-structured interview called the Adult Attachment Interview (AAI; George, Kaplan, & Main, 1985). Using Main and Goldwyn’s (1985-1995) coding procedure, attention is paid to the language used in the interview, the nature in which childhood experiences are reported, and the capacity the interviewee has to provide a coherent and integrated description of these childhood experiences and their significance. States of mind regarding early attachment experiences are then deduced from the discourse style and language used by the interviewee on the AAI (Main & Goldwyn, 1985-1995).
Adult attachment classifications are derived from the AAI\(^1\) and include secure, preoccupied, dismissing and unresolved/cannot classify (Waters, Hamilton et al., 2000). Adults able to believably communicate childhood experiences in a coherent way, place value on attachment relationships and acknowledge the importance of attachment experiences for their development are classified as “secure.” Insecure adults are classified based on violations of discourse or reasoning observed in the interview. Adults classified as “preoccupied” provide evidence of active anger or passivity during discussions of past relationships, and tend to exhibit confusion regarding childhood experiences. To be classified as “dismissing” on the AAI, adults often describe a history riddled with rejection, may idealize early relationships or have difficulty remembering specific events, and deny the impact of attachment relationships. The fourth classification, called “unresolved,” describes adults who exhibit incoherence regarding specific events of loss or trauma with respect to a caregiver or other important figure. The “unresolved” classification can be assigned in addition to any of the prior three attachment classifications.

Theoretically, attachment organization remains stable from infancy through adulthood (Bowlby, 1963). Longitudinal research has documented concordance in infant Strange Situation classification and AAI classification in the absence of adversity (Waters, Merrick, Treboux, Crowell, & Albersheim, 2000). However, the theoretical and empirical literature identifies life events that would be likely to influence the stability of attachment across time (Bowlby, 1973; Waters, Hamilton, et al., 2000). Bowlby (1973) identified such events as death of a parent, divorce, foster care, psychiatric disorder in parent, and severe illness resulting in separation of child from parent. Waters, Hamilton, et al. (2000) suggest such events influence attachment both directly and indirectly, by altering the parent-child relationship and increasing parental stress.

\(^1\) Although there is a large literature on adult romantic attachment measured by self-report instruments, it is beyond the scope of this literature review because the proposed study focuses on the parent-child relationship, which is best represented by the constructs measured by the Strange Situation (child) and AAI (parent).
Death of a parent, step-parent or sibling will be the focus of exploration in the current study.

Attachment disorganization. Risk factors that lead to complicated grief include insecure attachment, traumatic loss and the loss of a child (Stroebe, Schut & Stroebe, 2007). According to attachment theory, the disruption of attachment bonds in childhood may increase vulnerability to psychiatric disorders in adulthood (Bowlby, 1980; Kendler, Neale, Kessler, Heath, & Eaves, 1992). More specifically, disruption in the development of the affect-regulating attachment system can lead individuals to become preoccupied with fearful stimuli or exert excessive energy to seek security instead of focusing attention on other developmental tasks (Henninghausen & Lyons-Ruth, 2005). Theoretically, such lack of attention to appropriate developmental tasks may interfere with the development of coping skills, which can contribute to vulnerabilities that carry on into adulthood. In support of this idea, and of note for our research question, research has documented that young adults who lost a parent in childhood consider themselves more vulnerable to loss than non-bereaved young adults (Mireault, Bearor & Thomas, 2002).

Separation from or maltreatment by an attachment figure can hinder the adaptive development of the attachment system, which can foster negative internal working models and poor emotional regulation strategies (Collins, Guichard, Ford, & Feeney, 2004; Riggs, 2010). Whereas responsive and sensitive parenting facilitates optimal development of security, inconsistent, intrusive or rejecting caretaking can contribute to insecure-ambivalence or insecure-avoidance in children (DeWolff & van IJzendoorn, 1997). In extreme forms, these parenting styles have been linked to disorganized/disoriented infant attachment (Lyons-Ruth, Melnick, Bronfman, Sherry, & Llanas, 2004). For example, severe rejection, parental aversion, frightening behavior, excessive control, and behavior that both elicits and rejects attachment behavior can result in disorganized/disoriented infant attachment behavior.
There have been many explanations offered for when and how disorganized attachment develops within the context of the parent-child relationship (Lyons-Ruth, Bronfman, & Atwood, 1999; Madigan et al., 2006). For example, Main and Hesse (1990) suggested that parents who have lost a parent in childhood may behave in ways that inadvertently frighten their infants. This creates a potentially confusing situation for a distressed infant confronted with a parent who is both a source of comfort and safety, as well as a source of fear. This paradox disrupts the attachment system, leading to disorganization (Main & Hesse, 1990). Lyons-Ruth and colleagues proposed that such infants are unable to receive comfort from parents due to a combination of fearful parental behaviors and other environmental sources of stress. Parental behaviors related to infant disorganization include frightening and frightened behaviors, as well as disoriented responses, negative-intrusive responses, parent-infant role confusion, contradictory responses to infant affectivity, parental withdrawal and failure to respond to infant distress (Madigan et al., 2006).

When under stress and in need of comfort and reassurance, infants classified as disorganized display disorganized/disoriented attachment behavior characterized by contradictory approach-avoidance behaviors, disorientation, or behaviors which do not fit within any one attachment classification (Henninghausen & Lyons-Ruth, 2005; Spangler & Grossmann, 1999). Such behavior might present as an infant freezing or huddling on the floor instead of seeking contact with the caregiver. Infants with disorganized/disoriented attachment may form dissociated internal models of self and others and experience difficulty regulating arousal due to an inability to reduce anxiety in the face of a threatening attachment figure and continual activation of the fight-or-flight mechanism (Hesse & Main, 2006; Lyons-Ruth et al., 2004). Consequently, children may not develop an adequate means for management of emotional states.
and therefore develop negative views of the self and others (Riggs, 2010).

Main and Hesse (1990) found that parents exhibiting incoherence and/or mental disorganization while engaged in conversation about a traumatic experience or loss of attachment figure were more likely to have infants classified as disorganized. Research findings indicate that disorganized infant attachment is associated with parents’ unresolved loss and trauma, as identified on the AAI in both high-risk and control samples (Main & Solomon, 1986). Schuengel, Bakermans-Kranenburg and van IJzendoorn (1999) found that depression and other aspects of maternal sensitivity were not sufficient explanations of the correspondence between parental unresolved loss and infant disorganization. Schuengel et al. concluded that inconsistent frightening behavior is the mechanism linking parental unresolved loss to disorganized attachment in the next generation.

Parental loss and child attachment disorganization. Research has documented that parental failure to achieve resolution in mourning the death of an attachment figure is associated with disorganized attachment behavior in infants (Ainsworth, & Eichberg, 1991; Main & Hesse, 1990). These studies measured lack of resolution through observed lapses in coherence or lack of emotional integration (e.g. inconsistencies regarding the circumstances surrounding a loss, unresolved feelings of fear or guilt related to the loss) within narrative descriptions of the loss of attachment figure (Ainsworth & Eichberg, 1991). Ainsworth and Eichberg replicated research of Main and Hesse that showed parental failure to resolve attachment loss, and not death of an attachment figure itself, to be associated with infant attachment disorganization. In Main and Hesse’s sample, all mothers with unresolved loss \( (n = 10) \) had infants classified as disorganized compared to mothers with resolved mourning \( (n = 20) \) of which only 2 had infants classified as disorganized. Ainsworth and Eichberg reported findings that suggest no adverse effects
particular to infants of parents who experienced childhood loss compared to infants of parents with later losses. In their sample, the same percentage of mothers who had suffered the loss of a parent in childhood had secure infants as mothers who experienced parental loss at any age. Ainsworth and Eichberg suggested that perhaps these findings contrary to the literature on early loss are evidence in support of the influence of favorable environmental circumstances that aid in the resolution of such early loss.

In contrast, other researchers report negative outcomes for children of parents with a significant loss history. Twomey (1995) found that toddlers of parents with unresolved loss exhibited behavioral problems, language problems, and social withdrawal from parents. Heller and Zeanah (1999) conducted a study with parents who experienced a perinatal loss within fourteen months of giving birth and assessed the mother-child attachment at 12 months. They found that 45% of infants had disorganized attachments to their mothers, which is a significantly higher percentage than the expected rate of 15% disorganized attachments in other middle-class samples. In this study, recent loss clearly influenced parents’ ability to foster attachment security in children. How might an earlier loss in childhood influence parental attachment to children many years after the attachment loss?

The answer is complicated because many factors may influence the ability of parents to promote change in their child’s attachment security over time (Browne, Joyce, Wells, Bushnell, & Hornblow, 1995; Haine, Ayers, Sandler, Wolchik, & Weyer, 2003; Luecken, 2008). So a better question might be: what contributes to the development of parent-child interactions that foster infant insecure attachment? Theorists emphasize competing motivational systems that exist within the parent, only one of which is the parent’s desire to maintain the safety of and care for his or her child (Solomon & George, 1996). Parents have multiple competing goals that can
influence their relationship with their children, and some parents may have more resources available to devote to sensitive attunement with children. Psychological difficulties, such as acute distress, depression and/or insecure attachment, experienced by a parent can potentially leave less energy available to accomplish the goal of sensitive nurturance and protection of his or her offspring. Solomon and George noted that a parent’s own attachment experiences in childhood are a factor which shapes the parent’s current parenting context, or perceptions of danger and safety, which impact the caregiving behavior directed toward the child. Lovejoy, Graczyk, O’Hare, and Neuman (2000) found that insecure attachment is a mechanism which can lead to the development of behavior problems among children of depressed parents. Researchers suggested such behavior problems may have resulted from lack of sensitivity to the child by parents.

Bereavement and Grief

In order to clarify what processes are influential in the quality of parent-child relationships among parents who have lost an immediate family member (i.e. parent, step-parent or sibling) in childhood, it is useful to define these processes. Bereavement and grief are the processes of focus in the current study. The terms bereavement and grief can be used in a variety of contexts with varied meanings in everyday language. For research purposes and for the sake of consistency, an examination of the definition of these constructs in the existing literature yields operational definitions of the construct applied in this study. Bowlby (1973) defined grief as a type of separation anxiety that results from the disruption of an attachment bond. Bowlby (1980) indicated that such grief resulting from childhood parental loss may contribute to subsequent psychopathology.

Stroebe, Schut, and Stroebe (2007) defined grief as “the mainly emotional reaction to
bereavement, incorporating diverse psychological and physical reactions” (p. 1960). However, operationalization of the term “grief” requires a further definition of the term “bereavement.” Stroebe, Hansson, Stroebe and Schut (2001) defined bereavement as, “the objective situation of having lost someone significant” (p. 6). Broken down, grief is viewed as an emotional response to bereavement, which refers to the recent loss of someone important, such as an immediate family member, through death. Parkes (2006) distinguished grief from other psychological reactions, listing the essential components as loss and a yearning for the lost person. For the purposes of this study, I will refer to bereavement as the condition of having lost an immediate family member, and the focus is on the long-term outcomes of childhood grief for adults who were bereaved before the age of 18.

Consequences of bereavement/grief. Stroebe et al. (2001) reviewed research regarding the immediate effects of bereavement and grief in reaction to loss across the lifespan. Affective reactions to bereavement reported in the literature included depression, anxiety, anhedonia, loneliness, guilt, despair and dejection, as well as hostility and anger. Researchers also identified cognitive consequences to bereavement, such as difficulty with concentration, memory problems, self-reproach, a sense of unreality, helplessness and hopelessness, lowered self-esteem, self-reproach, and a preoccupation with thoughts of the deceased. Bereaved individuals also respond behaviorally with social withdrawal, crying, agitation and fatigue. Finally, Stroebe et al. (2001) summarized somatic and physiological consequences, including sleep disturbance, physical complaints akin to those endured by the deceased, exhaustion, high blood pressure, loss of appetite, susceptibility to illness and disease, and changes in drug intake.

In addition, an increased physiological susceptibility to stress has been identified as a long-term effect of childhood bereavement (Hammen, 2003; Luecken, 1998; Nicolson, 2004).
Leucken found increased cortisol levels in response to a stressful task among young adults who lost a parent in childhood when compared to control subjects who had not lost a parent in childhood. Nicolson also conducted a study of everyday cortisol levels in adult men who had lost a parent in childhood and found increased cortisol levels throughout the day in the childhood loss group when compared to control subjects who did not experience childhood parental loss. These findings regarding physiological disturbances subsequent to childhood loss of attachment figure suggest that the emotional and cognitive implications of childhood bereavement may extend into adulthood as well.

Some scholars have made a distinction between typical grief reactions and more severe, intensive reactions to bereavement. For example, Stroebe et al. (2001) defined pathological grief as, “a deviation from the (cultural) norm (i.e., that could be expected to pertain, according to the extremity of the particular bereavement event) in the time course or intensity of specific or general symptoms of grief” (p. 6-7). Silverman, Johnson, and Prigerson (2001) contrasted grief with “complicated grief,” or “traumatic grief,” which they consider a deviation from typical grief reactions. They defined traumatic grief as a cluster of symptoms consisting of both separation distress symptoms such as excessive loneliness, and traumatic distress symptoms such as a fragmented sense of security and trust. In their study of grief and childhood experiences, Silverman et al. reported a higher frequency of childhood loss of parent or sibling in individuals suffering from complicated grief reactions from an adult loss than in individuals with uncomplicated grief. This research suggests that losing a close relative in childhood can influence the reaction to bereavement in adult life.

*Childhood bereavement.* For the purposes of this study, childhood bereavement is the term that is used to indicate individuals who have lost an immediate family member (i.e., parent,
step-parent or sibling) before the age of eighteen. In children under the age of 18, 3 to 4% have experienced the loss of a parent through death (Sandler, Ma, Tein, Ayers, Wolchik, Kennedy et al., 2010). Hogan and DeSantis (1996) reported that, yearly, nearly two million children experience the death of a sibling. Speisman (2006) cites data from the 2002 National Epidemiologic Survey on Alcohol and Related Conditions (NESARC), indicating a prevalence of 10.5% parental loss before the age of 18 in the NESARC sample ($N = 43,093$). The noted increase in prevalence for childhood parental loss in the sample of individuals struggling with alcohol related difficulties suggests that childhood loss of attachment figure may contribute to negative adult outcomes. Given the frequency and potential consequences of such loss, there has been considerable research regarding the role that loss in childhood has on adult psychological functioning (Christ, Siegel & Christ, 2002; Marks, Jun, & Song, 2007; Sandler et al., 2010).

Children and adolescents have yet to fully develop into adults. As such, the grieving process is qualitatively different for a child under the age of eighteen than for an adult suffering a similar loss (Christ et al., 2002; Oltjenbruns & Balk, 2007; Rosen & Cohen, 1981). Oltjenbruns and Balk point out that the experience of grief varies as a function of the life stage an individual has reached when the loss occurs. Differential developmental processes impact the approach an individual uses to cope with loss. So the influence of bereavement on subsequent development into adulthood is altered as a result of the developmental stage an individual has reached at the time of loss (Oltjenbruns & Balk, 2007). Christ et al. also emphasized the importance of developmental factors in their description of the process necessary for an adolescent to successfully cope with grief subsequent to parental death. The tasks they outlined include overcoming barriers to developmental tasks, engaging in mourning for the lost parent and changing the relationship with the remaining parent or caregiver as well as with the dead parent.
Webb (1993) conceptualized complicated grief in children as grief that interferes with the child’s daily activities and completion of age-appropriate developmental tasks (Oltjenbruns, 2001), which vary by culture. Webb termed this type of grief reaction in children as ‘disabling grief.’

In a sample of 278 adult psychiatric outpatients and 78 control subjects, Parkes (2006) reported that childhood vulnerability affects adults’ capacity for coping in adulthood. This finding draws an important link from childhood to adulthood, suggesting that childhood loss creates vulnerability in the development of adaptive coping skills necessary in adult relationships. A distinction has been made between coping behaviors and the effects of bereavement so that the processes underlying adaption to loss are not confused with outcomes as a result of bereavement (Stroebe et al., 2001). Parsing apart these two concepts allows for consideration of strategies utilized for management of bereavement along with other factors that influence outcomes after bereavement, including “type of death” and relationship to the deceased (Speisman, 2006; Stroebe et al., 2001).

Stroebe et al. (2005) introduced a coping model called the dual process model of coping with bereavement. Integrating cognitive coping and attachment theories, they proposed that grief reactions consist of oscillation between loss-oriented coping and restoration-oriented coping. Loss-oriented coping refers to the direct processing of the loss which includes separation distress, reappraisal of the meaning of the loss, attempts to relocate the deceased when the lost one is no longer physically present, and grief work. Restoration-oriented coping refers to grappling with the indirect and situational changes resulting from the loss such as identifying as a widower instead of as a husband.

Stroebe et al. (2005) examined different adult attachment classifications, and the theoretical alignment of bereavement behavior to each, with respect to the oscillation between
loss and restoration-oriented coping. Secure individuals were found to oscillate between loss and restoration-oriented coping, utilizing loss-oriented coping until it became too overwhelming for their available resources, then shifting to restoration-oriented coping in order to maintain efficacy. Stroebe et al. found that secure individuals displayed grief initially but eventually were able to integrate the loss into a new picture of the self. Insecure individuals were found to focus more or less on restoration or loss oriented coping depending on their positive or negative internal working models of self and others. This study exemplifies how responses to loss and coping are influenced by the attachment organization of bereaved individuals. Such findings also demonstrate how bereavement and parenting might be reacted to differentially based on the organization of internal working models developed in the context of early relational experiences.

Research on childhood attachment organization indicates separation from or loss of an attachment figure can contribute to poor emotional regulation and negative internal working models of self and other (Collins et al., 2004; Riggs, 2010). Main and Hesse (1990) report findings which suggest the death of a parent in childhood may have a greater adverse effect on subsequent mental health and development than a similar loss in adulthood. However, Ainsworth and Eichberg (1991) were unable to replicate Main and Hesse’s results, reporting that 0 of 5 mothers with childhood attachment loss in their sample had disorganized infants, and only one of those mothers had an infant classified as insecure. Yet, Ainsworth and Eichberg maintained that Main and Hesse’s findings are not necessarily disproven because early attachment loss can be successfully resolved, and thus prevent lack of resolution from interfering with adult relationships. Bowlby (1980) proposed that resolution of early loss can occur in the context of favorable circumstances. Such favorable circumstances provide bereaved children with attentive, stable and uninterrupted parental care throughout the years following the loss and facilitate
communication with remaining caregivers about the effects of the loss (Bowlby, 1980). Effects
of bereavement include absence of the prior relationship to the deceased as well as reduced
presence of material and emotional support and resources in the family environment
(Hindmarch, 1995).

Hindmarch (1995) identified primary and secondary losses experienced by children who
lose a sibling. A primary loss is the absence of the sibling and the relationship that the child had
with the sibling, whether that of a friend, role model, playmate, ally or competitor. A secondary
loss is the security, normality, confidence and attention that the child was able to experience prior
to the death of a sibling. Hindmarch argued that each type of loss, primary and secondary, has
unique consequences for children who survive a sibling. Children’s needs following the loss of a
sibling include reassurance, information, attention, security, and understanding, which parents
may or may not be able to provide while grieving their own loss (Charles & Charles, 2006). Due
to their own need to process the grief experienced due to the loss of a young child, parents may
not be as available to help remaining children cope with the death of their sibling (Bowlby, 1980;

The consequences of sibling loss seem quite similar to the effects of parental loss. In fact,
Worden, Davies and McCown (1999) found no significant difference in problems, mental health
outcomes or risk factors between children bereaved of a parent and children bereaved of a
sibling. Charles and Charles (2006) discussed the developmental challenges that occur as a result
of sibling death and bereavement. Children who have suffered the loss of a sibling experience
unique stressors such as impaired relational functioning in young adulthood, due to altered
relational expectations (Charles & Charles, 2006; Yagla-Mack, 2001). Parental feelings of
isolation can prevent children from utilizing parental support to help regulate intense emotions in
response to the loss of a sibling and force surviving children to instead avoid working through the loss (Charles & Charles, 2006; Rosen & Cohen, 1981).

Adult Depression

The physiological, emotional and cognitive impact of a parent’s death in childhood may extend into adulthood through negative effects on mental health, particularly increased vulnerability to depression (Agid et al., 1999; Kendler, Sheth, Gardner, & Prescott, 2002; Marks et al., 2007). Research also demonstrates the effects of sibling loss in childhood may be just as influential as the loss of a parent (Charles & Charles, 2006; Hindmarch, 1995; Rosen, & Cohen, 1981; Worden et al., 1999). The proposed study will examine the mediating role of depression on the relationship between childhood attachment loss and parent-child relationship quality in adulthood. The following section contains a review of the precursors to adult depression and the influence of parental depression on parent-child relationships.

Parental loss as a precursor to depression. Leucken (2008) referred to loss of parent in childhood as a risk factor for the development of poor mental health outcomes in adulthood due to its impact on the child’s environment. Specifically, Leucken pointed to increased psychological distress and depression in the surviving parent as risk factors for internalizing and externalizing problems in the children of these surviving parents. Furthermore, parental death can be a precursor to other stressful experiences such as disruption of daily social routines, financial hardship, decreased contact with the surviving parent, separation of family members and frequent moving (Haine et al., 2003). These experiences can reduce a child’s self-esteem and contribute to the development of internalizing disorders. Luecken (2008) emphasized the importance of not only the environment following the loss of a parent in predicting vulnerability to depression, but also individual differences. Bereaved children with few resources to
effectively cope with a stressful environment are most susceptible to depression, whereas children who do not experience stressful environments, or those who have adequate coping resources despite the stressful environment, are not subject to increased vulnerability to depression. Maladaptive coping after parental death, such as the inhibition of emotional expression and restricted mourning, might also increase bereaved children’s risk for developing mental health problems (Sandler, Wolchick, Davis, Haine & Ayers, 2003).

In a national longitudinal study in the United States, Marks et al. (2007) reported that women who had lost one or both parents prior to the study reported greater declines in happiness, lower levels of psychological wellness and lower levels of personal mastery than those who had not lost a parent. Further, both women and men who lost a parent over the five year study period experienced greater increases in depressive symptoms, more declines in self-esteem and health compared to individuals with both parents alive at the end of the study. Among patients with bipolar disorder and major depression, findings supported an association between experience of parental death as a child and adult depression (Furukawa et al., 1999). Specifically, female patients diagnosed with depression reported significantly more experiences of maternal loss, both from separation and by death, than corresponding controls with no psychiatric diagnoses. Similarly, Takeuchi et al. (2003) found that psychiatric patients with a history of early loss had significantly higher self-reported depression when compared to patients who had not suffered such an early object loss.

In a study comparing middle aged men and women with major depression to healthy adults without major depression, Agid et al. (1999) found that participants with major depression were more likely to have experienced childhood parental loss than healthy controls. Brown, Harris and Copeland (1977) reported that when the loss of mother was prior to age 11,
individuals were more vulnerable to depression relative to others with loss that occurred after age 11 or no loss. This finding suggests that the age at time of loss may play an important role in determining the influence of early loss on adulthood functioning.

In another community sample, adults who retrospectively reported parental separation of at least eight months with infrequent contact or parental death during childhood were more likely to report symptoms of anxiety or depressive disorders than participants without parental loss or separation (Tyrka, Wier, Price, Ross, & Carpenter, 2008). For adults who reported parental separation without parental loss, familial history of anxiety and depressive disorders accounted for the symptoms of anxiety and depression observed. However, family history of depressive and anxiety disorders, quality of relationships with additional caregivers, and childhood maltreatment did not fully account for the reported symptoms of depression and anxiety in participants reporting parental loss, suggesting that loss of a parent may contribute uniquely to development of anxiety and depression (Tyrka et al., 2008).

Despite these reports, the literature regarding the role of childhood parental loss in the development of adult depression remains inconclusive. Kendler et al. (2002) attempted to clarify the relationship between loss of parent and later development of psychopathology. Findings suggested that separation from or death of a parental figure prior to age 16 dramatically increases risk for depression at the time of loss, but the effect decreases over time, returning to baseline risk by the time the child reaches age 25. Furthermore, in comparison to parental death, prolonged separation from a parental figure in childhood was found to moderately increase the risk of depression at the time of separation, with the risk decreasing over time, but much slower than the effect found for parental death, not returning to baseline until the separated child reaches age 39.
Other findings show no association between childhood loss and adult depression (Dieserud, Forsen, Braverman, & Roysamb, 2002; Nicolson, 2004). For example, Dieserud et al. utilized a matched case control design and reported no statistically significant relationship between childhood loss of attachment figure and adult depression. Nicolson also found no difference in depressive symptoms between subjects with childhood parental loss and control subjects with no childhood parental loss.

Further mixed findings include those reported by Browne et al. (1995) who studied the influence of disruptions in parental care prior to age 15 years as risk factors for lifetime major depression in 18-to 44-year-old-women. They reported that loss of parent was not significantly related to depression in their sample, but prolonged separation from both parents was associated with increased risk of current and lifetime depressive episodes. Browne et al. (1995) suggest that prolonged separation is an indicator for other risk factors which influence development of depression in adulthood. Silverman, Johnson, and Prigerson (2001) found that childhood adversities, such as losing a parent, can influence the reaction to bereavement in adult life. For example, death of parent or sibling during childhood and a history of childhood abuse were more frequent among those who suffered complicated grief than among those whose grief was uncomplicated. Specifically, childhood experience of parental loss or abuse predicted traumatic grief and major depression in response to adult bereavement. However, when effects of co-occurring abuse were controlled for, death of a parent no longer significantly predicted major depression in adulthood.

Despite evidence that bereaved children are at increased risk for experiencing mental health problems, protective factors can promote positive adjustment through adaptive coping subsequent to parental loss (Leucken, 2008). Quality of parenting provided to the child by the
primary caregiver following parental loss predicts resilient psychological outcomes (Lin, Sandler, Ayers, Wolchik, & Leucken, 2004; Masten et al., 2004). Moreover, not all consequences of early parental separation and loss are negative. Simonton (1988) suggested that bereavement early in life might result in creativity, indicating that individuals may adaptively react to such an attachment loss. Lin et al. (2004) also identified family and child variables that differentiate between resilient and negatively affected children following parental bereavement. More resilient children experienced greater personal efficacy for stress management, increased parental discipline, greater parental warmth and lower levels of parental mental health problems. These findings help explain why some individuals who are bereaved in childhood do not suffer negative mental health consequences and subsequent relational difficulty. Furthermore, the research of Sroufe, Carlson, Levy, and Egeland (1999) indicates that later experiences beyond childhood attachment relationships can also influence individual’s internal working models of self, others and relationships.

Parental depression and the parent-child relationship. Depression has been cited as a factor that interferes with the development and maintenance of adaptive interpersonal relationships (Hirschfeld et al, 2000; Wilson & Durbin, 2009) including the relationship between parent and child (Huang, & Freed, 2006; Knitzer, et al., 2008). Harmful effects of maternal depression on the parent-child relationship are likely the result of impaired parenting, such as withdrawal and lack of responsiveness to the child, or negative interactions with the child and greater hostility (Gordon, Burge, Hammen & Adrian, 1989; Lovejoy et al., 2000; Wilson & Durbin, 2009). Research has shown that depression is associated with dysfunctional parenting in fathers (Wilson & Durbin, 2009). Specifically, fathers suffering from depression demonstrate lower levels of positive parenting behaviors such as decreased warmth, positive emotions,
responsiveness and sensitivity. Increased hostility, negative emotions, intrusiveness and disengagement were also found in depressed fathers (Wilson & Durbin, 2009).

Such parenting impairment resulting from depression has been conceptualized along the parenting dimensions of low expressed positive affect, which is defined as the absence of positive parenting behaviors and lack of warmth, and high expressed negative affect, which includes parental expressions of negative parenting and criticism (Chiariello & Orvaschel, 1995; Lovejoy et al., 2000; Wilson & Durbin, 2009). In addition, depressed mothers display less affectively involved parenting interactions with their children than non-depressed mothers (Goodman & Brumley, 1990).

Hammen (2003) noted that many women who suffer from depression desire to be good mothers yet are unable to do so effectively due to depressive symptoms. Examples of decreased responsiveness in depressed parents cited in recent research include inability to be consistent with routines, or the failure to read or play and cuddle with children due to the decreased energy levels commonly present in depressed mothers (Huang, & Freed, 2006; Knitzer et al., 2008) and other depressive symptoms such as hopelessness, loss of pleasure and irritability (Hammen, 2003). Gordon et al. (1989) wrote about systematic observations of mother–child discussions in which depressed women were found to make significantly more critical and disconfirmatory statements toward their children when compared with women in other mental health status groups.

In another study, women with a history of depression expressed critical attitudes about their adolescent children, which when combined with their children’s perceptions of the women’s controlling behaviors, was found to mediate the relationship between depression in mothers and their children’s subsequent externalizing behavior disorders (Hammen, 2003).
Aikens, Coleman and Barbarin (2008) studied the effect of parental depression on the parent-child relationship and subsequent child behavior problems among African-American families. Findings showed the quality of the parent-child relationship fully mediated the association between parental depressive symptoms and children’s hyperactivity and social maturity, and also partially mediated parental depressive symptoms and children’s attention problems, anxiety, depression, and opposition-defiance. These studies emphasized that parent-child relationship quality can be as influential for children’s outcomes as parental depressive symptomology (Aikens et al., 2008), further underscoring the importance of the parent-child relationship.

Easterbrooks and Biringen (2000) discussed the emotional availability of parents, or the parents’ emotional responsiveness and attunement to their child’s goals and needs through the acceptance of expressed emotions, as it relates to parenting within the attachment relationship. The presence of a responsive caregiver who makes him or herself emotionally accessible is a key component of the attachment relationship which allows the child to learn to regulate his or her own emotions. Citing an observational system developed to measure emotional availability in the context of the parent-child interaction (Biringen, Robinson & Emde, 1993, 1998), Easterbrooks and Biringen described the coded dimension of parental sensitivity, which comprises parental awareness of and responsiveness to the child, affective quality of parent-child interactions, creativity during play, and the quality of negotiations during conflict. Parental psychological distress, specifically maternal depression, is detrimental to infant attachment security. Lifetime maternal depression predicted insecure infant attachment and less favorable mother-infant interactions (Carter, Garrity-Rokous, Chazan-Cohen, Little & Briggs-Cowan, 2001; Lyons-Ruth et al., 1990).
Findings from multiple studies also point to the important role of other adults. A second non-depressed parent can buffer children from the negative parenting behaviors of a depressed parent (Aikens et al., 2008; Mezulis, Hyde, & Clark, 2004). Conversely, Mezulis et al. reported that paternal depressive symptoms can increase the ill effects of a child being cared for by a depressed mother. Essentially, these findings suggest that the mental health status of the second parent or caregiver can moderate the negative effects of a depressed parent. Whether the second parent’s presence serves to exacerbate the effects or serves as a buffer depends on the parenting skill and capacity of the second parent (Aikens et al., 2008; Mezulis et al., 2004).

Caregiver depression and relationship perceptions. Depression can influence perceptions of interpersonal communication and interpersonal interactions (Kowalik & Gotlib, 1987; Zuroff & Duncan, 1999), and thus may influence parental perceptions of interactions and relationship with their children. In a study of caregivers of children with chronic disease, Hood (2009) examined whether caregivers’ depressive symptoms resulted in distortion of their reports of their children’s depressive symptoms. Results showed that caregivers who reported fewer depressive symptoms reported perceptions more similar to their children’s self-reported depressive symptoms than caregivers with elevated symptoms of depression. In a study of parents of children with attention deficit/hyperactivity disorder, Gerdes et al. (2007) examined whether parental depressive symptoms influenced parental perceptions of parent-child relationship quality. Relative to non-depressed parents, fathers with higher levels of depressive symptomatology reported less warmth and mothers with higher levels of depressive symptomatology reported greater power assertion.

Pesonen et al. (2004) studied the implications of parental depression on parents’ reports of infant temperament, with attention paid to the potentially confounding influence of parental
attachment style. Results showed that depressive symptoms in both mothers and fathers significantly influenced perceptions of infant temperament. Pesonen and colleagues found that depressed parents perceived their infants as more distressed, more fearful, and reported less smiling and laughter and increased negative reactions from their infants. Parental anxious and avoidant attachment styles were associated with negative perceptions of infant temperament. However, this effect was no longer significant when parental depression was controlled for, suggesting that internal working models of attachment influence perceptions of the parent-child relationship through depressive symptoms (Pesonen et al., 2004). In contrast, Ferro (2010) studied mothers caring for children with new-onset epilepsy to determine whether maternal depressive symptoms influenced reports of children’s outcomes and found no difference in accuracy of reporting between mothers with high versus low levels of depressive symptoms.

The Current Study

The purpose of the current study is to examine direct and indirect links between childhood bereavement, parental depressive symptoms, and parents’ perception of their relationship with their child. Because the presence or absence of depressive symptomology can influence the quality of parent-child relationships for the depressed parent as well as the spouse of a depressed parent (Aikens, Coleman, & Barbarin, 2008; Mezulis et al. (2004), analyses that take into account the interdependent nature of family relationships were selected for this study. The actor-partner interdependence model (APIM; Kenny, Kashy & Cook, 2006) is a theoretical model able to parse out both actor and partner affects and account for mutual influence and common fate. APIM can handle mixed independent variables, or variables that vary both within and between dyads, such as the occurrence of childhood bereavement and subsequent mental health status of parents in the proposed study’s sample. In APIM, multilevel modeling (MLM) is
used with non-independent dyadic data whereby each individual parent is nested within the married dyad. MLM analyses in the APIM theoretical model also take into account the error variance within and between parental dyads. APIM allows for the assessment of actor effects, which in this study is the effect of a parent respondent’s childhood attachment loss history on his or her own reported depressive symptoms and quality of parent-child relationship. APIM also allows for the assessment of partner effects among parenting dyads, which in this study is the unlikely (and unexpected) effect of the spouse’s childhood attachment loss history on the parent respondent’s reported depressive symptoms and quality of parent-child relationship, as well as the more likely (and predicted) effect of the spouse’s reported depressive symptoms on the parent respondent’s reported quality of parent-child relationship. Interaction effects will be explored as interaction terms, specifically gender and depressive symptoms, within the first three steps of the MLM.

The first hypothesis predicts that respondents who report childhood loss of an immediate family member will perceive poorer attachment quality between themselves and their own child (henceforth referred to as “parent-child attachment”) than respondents who do not report a childhood loss (see Figure 1). The second hypothesis is that respondents who report childhood bereavement will report more depressive symptomology than respondents who do not report a childhood loss (see Figure 2). The third hypothesis is that greater depressive symptoms of both the respondents (actor) and their spouses (partner) will be associated with respondents’ perception of lower parent-child attachment quality. Additionally, due to the potential moderating influence of a spouse’s depression on parent-child relationship outcomes, it is expected that the interaction of respondent and partner depressive symptomology will be significantly related to the respondent’s report of parent-child attachment (see Figure 3). Finally,
both actor-actor and actor-partner mediation effects are expected: (a) actor/respondent depressive symptoms will mediate the association between the actor/respondent’s history of childhood bereavement and his/her perception of parent-child attachment relationship quality, and (b) partner depressive symptoms will mediate the association between partner history of childhood bereavement and the actor’s report of parent-child relationship attachment quality (see Figure 4).
The proposed study uses archival data from the Family & Kid Connection project led by Dr. Shelley Riggs, Principal Investigator. Participants were 86 families (N = 172 parents) comprised of heterosexual married parents and at least one child aged 8 to 11 years. Only the parents’ data were used in the study. The mean reported age of parents in the sample is 37.49 (SD = 5.42), with men reporting a mean age of 38.36 yrs. (SD = 5.56), and women reporting a mean age of 36.65 yrs. (SD = 5.14). The ethnic composition of the sample is 78.6% European American, 9.5% Hispanic, 7.7% African American, 1.8% Asian/Pacific Islander, 0.6% Native American, and 1.8% of participants indicating multi-racial or other ethnic-racial background. Annual family income level reported by participant families consisted of 3.7% of families earning below $15,000, 7.4% earning between $15-30,000, 12.9% earning $30-$45,000, 17.8% earning $45-60,000, 17.8% earning $60-75,000, and 35.6% earning over $75,000. Parents who experienced loss of parent or sibling prior to age 18 comprised 12.3% of the sample (N = 20), which is above reported prevalence rates at 3-4% of the general population. Sample characteristics of interest are presented in Tables 1-3.

Instruments

The Background Information Questionnaire (BGI; Riggs, 2003) is a self-report instrument developed for participants to provide basic demographic information such as age, sex, ethnicity, family income level, etc. The questionnaire also requested information on the length of current marriage and family background variables, such as parental divorce, family mental health history, and deaths of family members in childhood. Childhood bereavement was coded 0 = “no”
for participants who do not report the death of a parent, step-parent or sibling before the age of 18, and 1= “yes” for those reporting this history.

The Symptom Assessment-45 Questionnaire (SA-45; Strategic Advantage, Inc., 1998) is a brief 45-item self-report questionnaire designed to assess general psychiatric symptoms. The SA-45 consists of nine symptom domain scales. The current study used the Depression (DEP) scale, which includes items querying depressive symptomology, such as recent experiences of feeling lonely, hopeless, and worthless, loss of interest in things, and feeling “blue.” Participants describe how much the symptoms listed have distressed them in the past week on a 5-point Likert scale, with response options ranging from Not at all to Extremely. The SA-45 internal consistency reliability coefficients range from .72 to .83 for the DEP scale (Maruish, 1999; Maruish, Bershadsky, & Goldstein, 1998). SA-45 internal consistency reliability coefficient for the DEP scale in this sample is .81. Test-retest reliability coefficients for the SA-45 range from $r = .57$ to .87 (Maruish, 1999, 2004; Maruish, Bershadsky, & Goldstein, 1998).

The Parenting Relationship Questionnaire (PRQ; Kamphaus, & Reynolds, 2006) is a 71-item self-report measuring parents’ perception of their relationship with their child. Each item asks parents to select the response that best describes recent experiences with their child. Each item provides a 4-point Likert scale ranging from never describes your experience to almost always describes your experience. The measure includes seven scales that tap into different aspects of the parent-child relationship. The Attachment Scale includes items such as when my child is upset, I can calm him or her, when upset, my child comes to me for comfort, and I know when my child wants to be left alone, and was used in the current study. This scale is designed to measure parent perceptions of the affective, cognitive and behavioral aspects of the parent-child
relationship that contribute to parental feelings of empathy, closeness and understanding toward the child. The PRQ internal consistency reliability coefficients reported for the attachment scale range from .82 to .86 (Kamphaus, & Reynolds, 2006) for parents of children ages 6-12 years of age. PRQ internal consistency reliability coefficient for the attachment scale in this sample is .84.

Procedures

All procedures were reviewed and approved by the university’s Institutional Review Board. Families were recruited through flyer solicitation at community businesses, public recreation areas and educational facilities. Incentives offered for participation included $30-40, admission tickets for local sporting events, and coupons for local businesses. Interested families were instructed to contact the project manager via telephone or email. Once eligibility to participate in the study was confirmed and family contact information was gathered, routine monthly follow up contact was made by research assistants to schedule participation. After they arrived at the UNT research lab, families were given an overview of the study and signed informed consent forms. Subsequently, they participated in videotaped family interactions tasks and individual interviews, then completed self-report questionnaires. Incomplete questionnaires were taken home by parents to complete and return to the research team in prepaid postage envelopes.

Data collected on each measure of interest have been inspected for missing items, which have been dealt with according to current research standards (Schlomer, Bauman & Card, 2010). On scales with individual items missing, missing values were imputed by the method described below before scale scores were calculated. For each instrument, missing items were identified by running demographics or utilizing missing values analysis in SPSS. The pattern of missingness
for each instrument was determined by utilizing Little’s (1988) MCAR test or multiple imputations (MI), and extreme cases (e.g. participants from parent dataset with more than 95% of an instrument missing) were removed. For the SA-45, negative values were imputed utilizing custom imputation models created based on expected values for each individual variable.

Categorical predictor variables were dichotomized (e.g. loss and no loss prior to age 18). Continuous predictor variables were centered on the grand sample mean and all data was organized in pairwise structure for dyadic analyses, so that each row contained the parent respondents’ scores in addition to their partners’ score.

A series of MLM analyses for distinguishable data tested APIM hypotheses. The hypothesis that parents’ childhood bereavement is significantly related to parent reported quality of parent-child attachment relationship was examined by using a mixed models procedure in SPSS. Each model included sex as the distinguishing variable, and actor and partner scores for the predictor(s). The first three direct models also included product interaction terms of the respondent’s predictor score by sex and/or by the partner’s score on the predictor variable(s). The final mediation model did not include interaction terms in order to keep the number of predictor variables to a minimum.
CHAPTER 3

RESULTS

Descriptive statistics are presented in Table 4. Levels of depression and attachment quality were analysed via $t$-test and did not differ for men and women or between parents with childhood bereavement and those without childhood bereavement. Chi-square analyses indicate no significant difference between men and women in reported loss. One-way ANOVAs indicated no significant differences in attachment quality between parents with different annual family incomes and ethnic backgrounds. Additionally, no significant difference was found between ethnicities for reported depression. However, parents with annual family income below $15,000 reported greater depression than parents with family income greater than $15,000 per year. The Pearson correlation between couple members’ reports of depression was significant, indicating that the data were non-independent. Also, reported depressive symptoms were significantly and negatively correlated with attachment quality for women, but not for men.

Multi-level modeling analyses for distinguishable data tested the actor-partner interdependence model (APIM) hypotheses using a SPSS mixed models procedure. The categorical predictor variable, childhood bereavement, was dichotomized (e.g. loss and no loss prior to age 18). The continuous predictor variable (depression) was centered on the grand sample mean. Data were organized in pairwise structure (i.e. each row contained both respondents’ and partners’ scores) for dyadic analyses. Prior to analyses, assumptions of normality and homogeneity of variance were assessed. For the multilevel modeling utilized in the actor-partner interdependence model, the assumption of multivariate normality was evaluated using SPSS QQ plots of residuals, and each key variable was examined for skewness and kurtosis finding adequate conformity to the assumption of normal distribution for all scales but
the SA-45. SA-45 depression was observed to have a positive skew, as might be expected in a non-clinical, community sample. To transform data and ensure normality, a logarithm was applied to each SA-45 depression T score. All other multivariate assumptions were met.

For all models, the within-dyad variable was the sex of the parent (i.e., father, mother) and the dependent variable was the actor’s score on either depression or attachment quality. Each model included actor and partner scores for the predictor, in addition to the respondent’s predictor score by sex and the partner’s score by sex, as well as the product interaction term of respondent by partner score on the predictor variable.

Results of the first MLM analysis, shown in Table 5 (Step 1), did not support the hypothesis that actor childhood bereavement is significantly related to actor report of parent-child attachment quality. It was not expected that partner childhood bereavement would be significantly related to actor report of parent-child attachment, and findings were consistent with this prediction. In addition, effects for sex and interaction terms were non-significant.

The second MLM analysis, as shown in Table 5 (Step 2), tested the hypotheses that actor depression is significantly related to actor reported lower parent-child attachment quality and that partner reported depression is significantly related to actor report of poorer parent-child attachment quality. Results from the second MLM analysis support the prediction that actor depression is significantly related to actor report of poorer parent-child attachment quality (Estimate = -42.099, \( t = -2.69, p < .01 \)), but showed partner depression is not a significant predictor of actor parent-child attachment quality. Actor and partner sex and interaction terms were non-significant.

Results of the third MLM analysis did not support (see Table 6) the hypothesis that actor childhood bereavement will be significantly related to actor depression. However, results of the
analysis were consistent with the hypothesis that partner childhood bereavement is not significantly related to actor depression. No significant effects for sex and interaction terms were found.

The final hypothesis predicted actor-actor and actor-partner mediation effects for depression in the association between childhood bereavement and parent-child relationship quality. Because no significant association between childhood loss and parent-child attachment was found, actor-actor actor-partner mediation effects of depression were not supported. In fact, actor depression was associated with actor parent-child attachment quality, but depression was not a significant mediator in this model because there was no significant relationship found between loss and relationship quality in this sample. Although not all of the first three steps of the analysis were significant (i.e. no potential mediation; Kenny, Korchmaros, & Bolger, 2003; West, Popp, & Kenny, 2008), the final MLM analysis was run to examine strength of association between the predictors and parent-child attachment. The final analysis tested an initial model that included sex, actor and partner scores on childhood loss, and interaction terms for childhood loss by actor or partner depression. The final multilevel model (Table 7) was trimmed by eliminating interaction terms with p values > .10.
CHAPTER 4
DISCUSSION

The current study examined the associations between childhood bereavement in now adult parents, adult depressive symptoms and current parent-child attachment relationships. Findings were mixed, demonstrating support for some hypotheses but not others. This chapter will discuss the findings of the current study in light of current literature and clinical implications. Recommendations for future research will be provided.

Results provided evidence to substantiate the hypothesis that parental depression is related to parent-child attachment quality. Specifically, an actor effect was observed, indicating that parents who reported higher levels of depressive symptoms were more likely to report less optimal parent-child attachment quality than parents who reported lower levels of depressive symptoms. The actor effect shows that psychological distress, specifically depression, is related to perceptions of the parent-child relationship. This finding is consistent with prior research that links parental depression, impaired parenting, and poor parent-child attachment (Knitzer, et al., 2008; Wilson & Durbin, 2009). This finding emphasizes the need for clinicians and researchers to consider interventions for depressed parents that take into account the impact of the depressive symptoms on the parent-child relationship. Possible interventions that may prove beneficial for this population include family group cognitive-behavioral intervention (Compas, Champion, Forehand & Cole, 2010), interpersonal psychotherapy for depressed mothers (Swartz et al., 2008), or cognitive-behavioral family intervention (Sanders & McFarland, 2000), as these programs have been shown to have the potential to reduce the negative impact of parental depression on the parent-child relationship (Boyd & Gillham, 2009).
In light of this significant finding, it is important to note the influence of depression on parental reports of attachment to children. Accuracy of parental perceptions of parent-child interactions and relationship can be negatively influenced by depression (Hood, 2009; Gerdes et al., 2007), and current findings may support this association. In other words, if depressed parents report lower attachment relationship quality with their children, it may be due to actual poorer attachment quality as hypothesized, or it may be the result of a depressive reporting bias. Future research should include objective third party measurement or child self-reports of the parent-child attachment relationship, such as observational data and childhood attachment questionnaires, in addition to parental reports in order to explore the influence of this potential confound.

Contrary to hypotheses, depressive symptoms of the spouse were not significantly related to parental perceptions of the attachment relationship to his or her child. This finding is inconsistent with research suggesting that a second parent’s depressive symptoms, or lack thereof, can serve to moderate the negative effects of a depressed parent (Aikens et al., 2008; Mezulis, Hyde, & Clark, 2004). The lack of significant findings in this study might be related to the low levels of depression reported in this non-clinical sample of parents, and subsequent low power for depressed/non-depressed parental dyads where such effects occurred in the current sample. Furthermore, reported depressive symptoms were significantly and negatively correlated with attachment quality for mothers but not for fathers. This suggests gender differences in the relationship between depression and parent-child attachment consistent with research indicating that father-child attachment relationships are qualitatively different than mother-child attachment relationships (de Minzi, 2010; Grossmann et al., 2002). Such a distinction paves the way for future research to consider the differential attachment relationships
children develop with each parent separately and how these relationships may influence one another in the context of parental depression.

The current sample consisted of a non-clinical population of married families from the Southwestern United States, the majority of which were middle class, intact, Caucasian families. Nevertheless, cultural and ethnic differences within the current sample may have influenced the relationship between attachment loss, depression and parent-child attachment. Further research in this area will benefit from inclusion of participants that differ from the current sample in terms of geographic location, income, marital status and ethnic background to determine whether such differences influence these relationships and whether current findings are generalizable to those populations.

Research on the influence of childhood loss on the development of depression in adulthood is inconsistent (Dieserud, Forsen, Braverman, & Roysamb, 2002; Furukawa et al., 1999; Kendler et al., 2002; Nicolson, 2004; Takeuchi et al., 2003; Tyrka, Wier, Price, Ross, & Carpenter, 2008). Non-significant findings for the hypothesis that predicted parents with a history of childhood bereavement will report greater levels of depressive symptoms align with previous research indicating no association (Browne et al., 1995; Dieserud, Forsen, Braverman, & Roysamb, 2002; Nicolson, 2004), but contradicts other research demonstrating significant associations between childhood loss and adult mental health (Furukawa et al., 1999; Sandler et al., 2003; Takeuchi et al., 2003; Tyrka et al., 2008). The small number (N=20) of parents bereaved in childhood in the current sample may have contributed to low power and decreased the potential for significant findings. Future research in this area should strive to include a broader sample of bereaved parents in order to better understand the influence of childhood bereavement on adult depression and why it is a risk factor for some but not others. For
example, the extent of loss experienced by participants (i.e. loss of one family member in childhood or multiple losses?) can impact the experience of bereavement, as suggested by research on bereavement overload (Norris & Murrell, 1990; Parkes & Weiss, 1983). Although difficult and time-consuming to collect, longitudinal data with pre-loss, immediate post-loss and long-term follow-up data (when bereaved children are adult parents) that measures number of losses in childhood and adulthood and the effects of such loss(es) may shed light on the development of bereaved children and the quality of their subsequent parenting relationships with their own children.

In addition, whether the loss was anticipated or unanticipated, the subjective impact at the time of loss (Saldinger, Cain, & Porterfield, 2003; Stroebe et al., 2001), and the time elapsed since loss (Kendler et al., 2002) are factors that have been shown to influence psychological implications of childhood loss. It may be important to consider whether the gender of the deceased parent or sibling as well as the gender of parent bereaved in childhood or gender of children contribute to current findings. Research has shown that gender is an important factor shaping reactions to parental bereavement (Moss, Resch, & Moss, 1997; Martin & Doka, 1998; Umberson & Chen, 1994). It might also be useful to explore if there are reliably different outcomes for individuals with loss prior to 18 compared to those with loss after age 18, as the time of loss may influence the impact of childhood loss on adult functioning (Brown, Harris & Copeland, 1977). Future research will benefit from inclusion of these factors in analyses, and data preparation for a modification of the current study is currently underway. This modification will include in analyses the time elapsed since loss, genders of child and family member lost, age at time of loss and number of losses in both childhood and adulthood as reported on the Adult Attachment Interview (AAI).
Quality of relationships subsequent to loss can influence the persistence of consequences of childhood bereavement, and such relationships include therapeutic relationships (Fosha, 2010), alternate attachment figures in childhood (Bowlby, 1980; Lin, Sandler, Ayers, Wolchik, & Leucken, 2004) and adult attachment experiences (Saunders, et al., 2011). Current non-significant findings may support earlier published research that indicates available support and coping resources for the child at the time of loss and in subsequent years can influence psychological implications of childhood bereavement (Lin, Sandler, Ayers, Wolchik, & Leucken, 2004; Masten et al., 2004; Sroufe, Carlson, Levy, and Egeland, 1999). Additionally, the occurrence of divorce in the family may also influence the outcome associated with childhood bereavement (McLeod, 1991). Future research that takes into account availability and quality of support and coping resources subsequent to loss may serve to clarify the developmental processes involved in the lives of individuals who experience childhood attachment loss across the lifespan into adulthood and parenting relationships.

Moreover, as noted by Ainsworth and Eichberg (1991), it may be lack of resolution for loss, and not the childhood loss of an immediate family member itself, that influences the parent-child attachment relationship as children mature and become parents. Future research may benefit from use of the AAI unresolved for loss categorization in order to test whether the lack of resolution is in fact a better predictor for adult vulnerability and parent-child attachment quality. Lack of resolution for loss on the AAI is assessed through observed lapses in coherence or lack of emotional integration (e.g. inconsistencies regarding the circumstances surrounding a loss, unresolved feelings of fear or guilt related to the loss) within narrative descriptions of the loss of attachment figure (Ainsworth & Eichberg, 1991; Main & Hesse, 1990). A planned extension of
the current study will utilize AAI unresolved loss classification as the independent variable expected to predict both depressive symptoms and lower reported parent-child attachment.

Although current findings did not support the proposed hypothesis for the relationship between childhood bereavement and parent-child attachment, it provided support for the hypothesis that actor depression results in reported lower parent-child attachment quality suggesting the need for interventions designed to aid depressed parents in forming healthy attachment relationships with their children. Additionally, this study provides direction for future research on the influence of childhood bereavement on adult functioning, specifically the implications of childhood attachment loss and depression among parents for parent-child attachment.
Figure 1. Childhood bereavement associated with parent-child attachment.

Figure 2. Childhood bereavement associated with adult depression.

Figure 3. Actor depressive symptoms associated with poorer actor parent-child attachment relationship quality; Partner depressive symptoms associated with poorer actor parent-child attachment relationship quality; Moderating role of partner depressive symptoms. Solid line = Actor effect; Dotted line = Partner effect.
Figure 4. Mediation model using MedGraph (Jose, 2003) with depressive symptoms mediating link between childhood bereavement and parent-child relationship quality. Solid line = Actor effect; Dotted line = Partner effect.
## Table 1

**Characteristics of Parents in Sample (N = 86)**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White/European American</td>
<td>128</td>
<td>78.6</td>
</tr>
<tr>
<td>Hispanic/Latino/Mexican American</td>
<td>14</td>
<td>9.5</td>
</tr>
<tr>
<td>Black/African-American</td>
<td>12</td>
<td>7.7</td>
</tr>
<tr>
<td>Bi-racial/Multi-racial</td>
<td>3</td>
<td>1.8</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>3</td>
<td>1.8</td>
</tr>
<tr>
<td>Native American</td>
<td>1</td>
<td>0.6</td>
</tr>
<tr>
<td><strong>Annual Family Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; $15,000</td>
<td>6</td>
<td>3.7</td>
</tr>
<tr>
<td>$15-30,000</td>
<td>12</td>
<td>7.4</td>
</tr>
<tr>
<td>$30-$45,000</td>
<td>21</td>
<td>12.9</td>
</tr>
<tr>
<td>$45-$60,000</td>
<td>29</td>
<td>17.8</td>
</tr>
<tr>
<td>$60-$75,000</td>
<td>29</td>
<td>17.8</td>
</tr>
<tr>
<td>&gt; $75,000</td>
<td>58</td>
<td>35.6</td>
</tr>
</tbody>
</table>

## Table 2

**Number of Siblings**

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Male</strong></td>
<td>2</td>
<td>19</td>
<td>25</td>
<td>13</td>
<td>5</td>
<td>8</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Female</strong></td>
<td>3</td>
<td>26</td>
<td>28</td>
<td>12</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>5</td>
<td>45</td>
<td>53</td>
<td>25</td>
<td>10</td>
<td>11</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
### Table 3

**Individual Lost in Childhood**

<table>
<thead>
<tr>
<th></th>
<th>Loss</th>
<th>Mother*</th>
<th>Father*</th>
<th>Brother</th>
<th>Sister</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>14</td>
<td>7</td>
<td>6</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Female</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White/European American</td>
<td>16</td>
<td>8</td>
<td>5</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Bi-racial/Multi-racial</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Black/African-American</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hispanic/Latino/Mexican-American</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Native American</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Annual Family Income</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; $15,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>$15-30,000</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>$30-45,000</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>$45-60,000</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>$60-75,000</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>&gt;$75,000</td>
<td>8</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>20</td>
<td>9</td>
<td>8</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

*Includes step-parent*
Table 4

*Correlations, Means, Standard Deviations, T-tests, ANOVAs for Gender, Ethnicity, Income, Loss*

<table>
<thead>
<tr>
<th></th>
<th>SA-45 Depression</th>
<th></th>
<th>PRQ Attachment</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SA-45 Depression</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRQ Attachment</td>
<td>-.265*</td>
<td>.016</td>
<td>.122</td>
<td>.123</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Means (SD)</td>
<td>Total</td>
<td>54.40 (6.46)</td>
<td>49.43 (9.74)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Men</td>
<td>55.09 (6.74)</td>
<td>48.99 (10.16)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Women</td>
<td>53.71 (6.12)</td>
<td>49.60 (9.51)</td>
<td></td>
</tr>
<tr>
<td>T-tests for men/women</td>
<td></td>
<td>.140</td>
<td>-.58</td>
<td>.563</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Means (SD)</td>
<td>Black/African-American</td>
<td>55.42 (7.57)</td>
<td>48.25 (14.35)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Native American</td>
<td>63.00 (N/A)</td>
<td>47 (N/A)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Asian/Pacific Islander</td>
<td>51.00 (5.29)</td>
<td>64.67 (4.93)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>White/European American</td>
<td>54.24 (6.44)</td>
<td>48.71 (9.39)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hispanic/Latino/Mexican American</td>
<td>55.00 (4.96)</td>
<td>53.00 (6.14)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bi-racial/Multi-racial</td>
<td>56.67 (1.38)</td>
<td>48.67 (9.02)</td>
<td></td>
</tr>
<tr>
<td>F ratios for Ethnicity</td>
<td></td>
<td>.676</td>
<td>.642</td>
<td>1.214</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.305</td>
</tr>
<tr>
<td>Annual Family Income</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Means (SD)</td>
<td>&lt;$15,000</td>
<td>62.83 (10.55)</td>
<td>48.83 (7.22)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$15-30,000</td>
<td>50.83 (5.36)</td>
<td>52.58 (13.18)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$30-45,000</td>
<td>55.81 (6.58)</td>
<td>45.33 (9.43)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$45-60,000</td>
<td>56.10 (7.16)</td>
<td>49.21 (8.14)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$60-75,000</td>
<td>53.57 (6.53)</td>
<td>50.00 (10.46)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;$75,000</td>
<td>53.12 (5.03)</td>
<td>49.79 (9.63)</td>
<td></td>
</tr>
<tr>
<td>F ratios for Income</td>
<td></td>
<td>4.199**</td>
<td>.001</td>
<td>1.031</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.401</td>
</tr>
<tr>
<td>Childhood Bereavement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Means (SD)</td>
<td>Loss</td>
<td>52.21 (6.60)</td>
<td>45.70 (11.21)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No Loss</td>
<td>54.72 (6.44)</td>
<td>49.95 (9.45)</td>
<td></td>
</tr>
<tr>
<td>T-tests for Loss/No Loss</td>
<td></td>
<td>1.591</td>
<td>.114</td>
<td>1.841</td>
</tr>
</tbody>
</table>

*Note*. In top frame, correlations for women appear below the diagonal; correlations for men appear above the diagonal. Bolded values are correlations between dyad members.

*p < .05, **p < .01, ***p < .001*
### Table 5

*Multilevel Models for Childhood Loss or Depression Predicting Parent-Child Attachment*

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>SE</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1: Childhood Loss Predicting Parent-Child Attachment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>1.143</td>
<td>2.231</td>
<td>.513</td>
</tr>
<tr>
<td>Actor Loss</td>
<td>3.294</td>
<td>2.726</td>
<td>1.209</td>
</tr>
<tr>
<td>Partner Loss</td>
<td>2.197</td>
<td>2.661</td>
<td>.825</td>
</tr>
<tr>
<td>Sex X Actor Loss</td>
<td>-.949</td>
<td>3.218</td>
<td>-.295</td>
</tr>
<tr>
<td>Sex X Partner Loss</td>
<td>-.076</td>
<td>3.217</td>
<td>-.024</td>
</tr>
<tr>
<td>Actor Loss X Partner Loss</td>
<td>-2.527</td>
<td>3.531</td>
<td>-.716</td>
</tr>
<tr>
<td><strong>Step 2: Depression Predicting Parent-Child Attachment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>.073</td>
<td>.734</td>
<td>.099</td>
</tr>
<tr>
<td>Actor Depression</td>
<td>-42.099</td>
<td>15.664</td>
<td>-2.688**</td>
</tr>
<tr>
<td>Partner Depression</td>
<td>-16.693</td>
<td>15.686</td>
<td>-1.064</td>
</tr>
<tr>
<td>Sex X Actor Depression</td>
<td>-7.599</td>
<td>15.824</td>
<td>-.480</td>
</tr>
<tr>
<td>Sex X Partner Depression</td>
<td>-4.091</td>
<td>15.846</td>
<td>-.258</td>
</tr>
<tr>
<td>Actor Depression X Partner Depression</td>
<td>404.427</td>
<td>325.154</td>
<td>1.244</td>
</tr>
</tbody>
</table>

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

### Table 6

*Multilevel Model for Childhood Loss Predicting Depression*

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>SE</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 3: Childhood Loss Predicting Depression</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>-.004</td>
<td>.005</td>
<td>-.783</td>
</tr>
<tr>
<td>Actor Loss</td>
<td>.012</td>
<td>.011</td>
<td>1.088</td>
</tr>
<tr>
<td>Partner Loss</td>
<td>.007</td>
<td>.011</td>
<td>.674</td>
</tr>
<tr>
<td>Sex X Actor Loss</td>
<td>-.008</td>
<td>.008</td>
<td>-.985</td>
</tr>
<tr>
<td>Sex X Partner Loss</td>
<td>.004</td>
<td>.008</td>
<td>.491</td>
</tr>
<tr>
<td>Partner Loss X Actor Loss</td>
<td>-.002</td>
<td>.018</td>
<td>-.098</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01, ***p < .001
Table 7

*Final Trimmed Model Predicting Parent-Child Attachment*

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>SE</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>.080</td>
<td>.748</td>
<td>39.414</td>
</tr>
<tr>
<td>Actor Loss</td>
<td>2.320</td>
<td>1.592</td>
<td>1.457</td>
</tr>
<tr>
<td>Partner Loss</td>
<td>1.709</td>
<td>1.594</td>
<td>1.072</td>
</tr>
<tr>
<td>Actor Depression</td>
<td>-52.136</td>
<td>19.824</td>
<td>-2.630**</td>
</tr>
<tr>
<td>Partner Depression</td>
<td>-19.709</td>
<td>19.698</td>
<td>-1.001</td>
</tr>
<tr>
<td>Actor Loss X Actor Depression</td>
<td>25.422</td>
<td>32.547</td>
<td>.781</td>
</tr>
<tr>
<td>Actor Loss X Partner Depression</td>
<td>4.216</td>
<td>32.455</td>
<td>.130</td>
</tr>
</tbody>
</table>

*<p < .05, **p < .01, ***p < .001*
APPENDIX A

CONSENT FORM & MEASURES
Before agreeing to participate in this research study, it is important that you read and understand the following explanation of the proposed activity. It describes the procedures, benefits, risks, and discomforts of the study. It also describes your right to withdraw from the study at any time. It is important for you to understand that no guarantees or assurances can be made as to the results of the study.

**Purpose of the study and how long it will last:**

The purpose of this research is to examine the functioning of 8- to 11-year-old children in the context of other family relationships and patterns. If you agree to participate by signing this form, your family will be videotaped during interaction tasks, you will complete a battery of paper-and-pencil instruments and an interview, and your children will also complete some questionnaires. The total data collection process will take approximately 2.5 to 3 hours. If you or your spouse do not complete the questionnaires during this time, you may take home the remaining instruments to complete at home. You will be provided with a postage paid envelope to return the questionnaires to the investigator.

**Description of the study including the procedures to be used:**

You have chosen to participate in a study investigating child and family functioning. You will review the purpose and procedures of the study with the researcher and have the opportunity to ask questions about the study and your participation. After the consent forms are signed, family members will be given a series of topics to discuss for approximately 20 minutes. Afterwards, you and your partner will be interviewed in separate room while your children will complete their questionnaires. After the data are collected, you will keep a copy of the consent form.

**Description of procedures/elements that may result in discomfort or inconvenience:**

Although not expected, it is possible that you may experience some discomfort as a result of the questions asked in the paper-and-pencil instruments or interview. If excessive discomfort is experienced when completing the various measures, you may choose to stop answering questions at any time without penalty. The researchers will try to prevent any problem that could happen.
UNIVERSITY OF NORTH TEXAS
RESEARCH CONSENT FORM (Continued)

because of this research, but the study may involve risks to the participant which are currently unforeseeable. Let the researchers know if there is any problem and they will help you. However, UNT does not provide medical services of financial assistance for injuries that might happen because you are taking part in this research. If you feel the need to discuss your discomfort with a counselor, the researcher will provide you with a list of counseling resources in the community.

Compensation or benefits to participants:

A direct benefit to you is that you will receive $40 and a family fun pack (e.g., coupons for restaurants and/or recreational activities) once you have returned all questionnaires to the investigator. Depending on the date of receipt for completed questionnaires, compensation may take up to 4-6 weeks after the data collection session. The indirect benefit of participating in the study will be your contribution to ongoing efforts to learn more about child and family functioning. The knowledge gained in this study will enhance our understanding of factors that contribute to individual and system dysfunction and will offer practical information to family counselors that can usefully be applied to clinical intervention and prevention efforts.

Confidentiality of research records:

All information will be kept confidential by the investigators to the extent that is allowed by law. A number of steps will be taken to minimize the risk of loss of confidentiality. Codes, rather than names, will be used on all instruments and in the final report. You should not write your name anywhere on any of the questionnaires. Only the principal investigators, research assistants, transcribers and coders will have access to the questionnaires. The consent forms will be kept separate from the self-report instruments, which will be stored in a locked filing cabinet in the principal investigator’s laboratory until October 2017. At that time, all paper-and-pencil instruments will be shredded and audio recordings will be erased. The data will be used for training and research purposes only. It is anticipated that the results of the study will be presented at conferences and published in a psychological journal and/or book. Names and other identifying information will not be included in any presentation or publication.

Review for protection of participants:

This research project has been reviewed and approved by the UNT Institutional Review Board (940-565-3940.) Contact the UNT IRB with any questions regarding your rights as a research subject.

RESEARCH SUBJECTS’ RIGHTS: I have read or have had read to me all of the above. The research assistant has explained the study to me and answered all of my questions. I have been told the risks or discomforts and possible benefits of the study.

Research Consent Form -Page 2 of 3 ___________ Participant's initials

52
UNIVERSITY OF NORTH TEXAS
RESEARCH CONSENT FORM (Continued)

I understand that I do not have to take part in this study, and my refusal to participate or to withdraw will involve no penalty or loss of rights or benefits or legal recourse to which I am entitled. The study personnel may choose to stop my participation at any time.

In case there are problems or questions, I have been told I can call Dr. Shelley Riggs, whose phone number appears at the top of this form.

I understand my rights as a research subject, and I voluntarily consent to participate in this study. I also consent for my minor child(ren) listed below to participate in the study. I understand what the study is about and how and why it is being done. I have been told I will receive a copy of this consent form.

Minor Children and Ages:

________________________________________

________________________________________

Participant’s Signature          Date

For the Investigator or RA Designee:

I certify that I have reviewed the contents of this form with the person signing above, who, in my opinion, understood the explanation. I have explained the known benefits and risks of the research.

________________________________________          Date

Researcher's Signature

List below a current address where you would like your compensation sent.

Print Name:

________________________________________

Address:

________________________________________

☐ Check here if you give your permission to be contacted by the Principal Investigator for a follow-up study on the transition to adolescence. List below a permanent address and phone number where you or a family member might be reached in the next 3-5 years.

________________________________________

________________________________________

________________________________________

Research Consent Form - Page 3 of 3
Background Information Questionnaire – Form FKC

Part I: Demographic Information


3. Ethnicity  8. How many previous marriages? ______
   b. Native American  10. Please list all persons living in your home at the present time, their age & relationship to you:
   c. Asian/Pacific Islander
   d. White/European American
   e. Hispanic/Latino/Mexican American
   f. Bi-racial or Multi-racial
      (Specify: ____________)
   g. Other (Specify: ____________)

4. Educational Achievement:  11. Family Income Level
   a. Below high school  a. Below $15,000
   b. High school degree  b. $15,000-$30,000
   c. Some college  c. $30,000-$45,000
   d. Technical/2-year degree  d. $45,000-$60,000
   e. Bachelor’s degree  e. $60,000-$75,000
   f. Graduate degree  f. over $75,000

5. Occupational Status:
   a. Employed full time    b. Employed part time    c. Student    d. Unemployed

Part II: Family Background

12. Number of siblings: ________  Ages: ____________________________

13. Were you adopted?  A. Yes  B. No

14. Did your parents divorce?  A. Yes, before I was 18  B. Yes, after I was 18  C. No

15. If your parents divorced, did your mother remarry?  A. Yes  B. No
   If yes, how many times? ________  If yes, how old were you? ________

16. If your parents divorced, did your father remarry?  A. Yes  B. No
   If yes, how many times? ________  If yes, how old were you? ________

17. Did you experience the death of a close family member (e.g. parent, sibling, grandparent) before the age of 18?  A. Yes  B. No
   If yes, please circle the relevant relationship of the deceased family member to you.
   a. Mother  c. Stepmother  e. Brother  g. Grandmother
   b. Father  d. Stepfather  f. Sister  h. Grandfather
18. Which of the following best describes your religious orientation?
   a. Pentecostal       e. Methodist       i. Judaism       m. Spiritual, but not religious
   c. Presbyterian     g. Baptist         k. Islam         o. No religious affiliation
   d. Lutheran         h. Catholic        l. Buddhist       p. Other: ____________________

19. How religious was your family?  Not at all   a little   somewhat   fairly   very
(While you were growing up)        1           2           3           4           5

20. How religious is the family of which you are a parent currently?  Not at all   a little   somewhat   fairly   very
                                                                          1           2           3           4           5

21. Have you ever sought counseling services?  A. Yes   B. No

   If yes, please circle all relevant services and indicate duration in MONTHS. Using the following scale, indicate how helpful you found these experiences in the far right column below.

   Not at all helpful     Somewhat helpful     Very helpful
   __________________________________________
<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Months</th>
<th>Helpful?</th>
</tr>
</thead>
</table>
   a. Individual Therapy A. Yes   B. No   __________   _________
   b. Premarital Therapy A. Yes   B. No   __________   _________
   c. Couple Therapy A. Yes   B. No   __________   _________
   d. Family Therapy A. Yes   B. No   __________   _________
   e. Group Therapy A. Yes   B. No   __________   _________
   f. Career Counseling A. Yes   B. No   __________   _________
   g. AA/NA/etc A. Yes   B. No   __________   _________

For questions 22-32: Please indicate by checking Yes or No whether you or any of your family members (including aunts, uncles, grandparents) have experienced the concerns/problems listed below.

   If you check Yes, please indicate who it refers to using the corresponding letter in the following list (You may indicate more than one person):

   a. Mother   e. Brother   i. Uncle
   b. Father   f. Sister   j. Aunt
   c. Stepmother g. Grandmother   k. Cousin
   d. Stepfather h. Grandfather   l. Yourself

   Yes   No   Who:
   ______   ______   __________
   ______   ______   __________
   ______   ______   __________
   ______   ______   __________
   ______   ______   __________
   ______   ______   __________
   ______   ______   __________
   ______   ______   __________
   ______   ______   __________
   ______   ______   __________

   22. alcoholism or alcohol abuse
   23. abused drugs (other than alcohol)
   24. fatal or attempted suicide
   25. criminal charges
   26. was sexually abused
   27. was physically abused
   28. abused someone sexually
   29. abused someone physically
   30. took medicine prescribed for emotional problems
   31. hospitalization due to emotional problems
   32. diagnosed mental disorder (see #33)
33. If you checked “Yes” for #32, mental disorder, please choose the category or categories that
describe to the best of your knowledge the specific mental disorder(s) and who it refers to. (You
may indicate more than one person if applicable)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Who:</th>
</tr>
</thead>
<tbody>
<tr>
<td>___</td>
<td></td>
<td>a. depression ___________________________</td>
</tr>
<tr>
<td>___</td>
<td></td>
<td>b. bipolar (manic-depressive) disorder ___________________________</td>
</tr>
<tr>
<td>___</td>
<td></td>
<td>c. anxiety ___________________________</td>
</tr>
<tr>
<td>___</td>
<td></td>
<td>d. post-traumatic stress disorder ___________________________</td>
</tr>
<tr>
<td>___</td>
<td></td>
<td>e. obsessive-compulsive disorder ___________________________</td>
</tr>
<tr>
<td>___</td>
<td></td>
<td>f. attention-deficit hyperactivity disorder (ADD) ___________________________</td>
</tr>
<tr>
<td>___</td>
<td></td>
<td>g. eating disorder (anorexia, bulimia) ___________________________</td>
</tr>
<tr>
<td>___</td>
<td></td>
<td>h. schizophrenia ___________________________</td>
</tr>
<tr>
<td>___</td>
<td></td>
<td>i. other disorder (specify:______________) ___________________________</td>
</tr>
</tbody>
</table>

Part III: Family Status [Answer 34-35 if 8-12 y.o. child lives apart from one or more biological
parent(s)]

34. Length of marriage to 8-12 y.o. child’s biological parent in years: _____

35. How old was your 8-12 y.o. child when you separated/divorced his/her biological parent? _____

36. Were you in your first marriage when your 8-12 y.o. child was born? Yes No

37. How old was your 8-12 y.o. child when you remarried? _____

38. If your 8-12 y.o. child does not live with both biological parents, how often does your child
see the other biological parent?

____ Almost every day
____ At least once a week
____ At least once a month
____ About once every 6 months
____ About once a year
____ About once every few years
____ Never
REFERENCES


doi:10.2174/157340009789542123


doi: 10.1097/00004583-200101000-00012


Dieserud, G., Forsén, L., Braverman, M., & Røysamb, E. (2002). Negative life events in
crudity, psychological problems and suicide attempts in adulthood: A matched case-
control study. *Archives of Suicide Research, 6*(4), 291-308.
doi: 10.1080/13811110214525

Easterbrooks, M., & Biringen, Z. (2000). Guest editors' introduction to the special issue:
Mapping the terrain of emotional availability and attachment. *Attachment & Human

symptoms affect mothers’ reports of child outcomes in children with new-onset epilepsy?
*Quality of Life Research: An International Journal of Quality of Life Aspects of
Treatment, Care & Rehabilitation, 19*(7), 955-964. doi:10.1007/s11136-010-9660-2

Fosha, D. (2010). Healing attachment trauma with attachment ( . . . and then some!). In M.
Kerman, M. Kerman (Eds.) , *Clinical pearls of wisdom: Twenty one leading therapists
offer their key insights* (pp. 43-56). New York, NY US: W W Norton & Co.

Parental separation experiences among patients with bipolar disorder and major
doi: 10.1016/S0165-0327(98)00054-8

George, C, Kaplan, N, & Main, M. (1985). *Adult Attachment Interview*. Unpublished manuscript,
University of California, Berkeley.


Kobak, R. (1999). The emotional dynamics of disruptions in attachment relationships:


Lyons-Ruth, K., Bronfman, E. & Atwood, G. (1999). A relational diathesis model of hostile-


Main, M., & Solomon, J. (1986). Discovery of an insecure disorganized / disoriented attachment


experimental study of resilience in children of divorce and parentally bereaved children.


orientation effects in dyadic data: An actor-partner interdependence model approach.


doi: 10.1177/0146167207311199


