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ATTACHMENT BOND, PARENTAL DEATH, AND PARENTAL DIVORCE AS
PREDICTIVE VARIABLES OF DEPRESSION

BY

JASON R. BAKER

B.A., Psychology, University of New Hampshire, 2005

THESIS

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in

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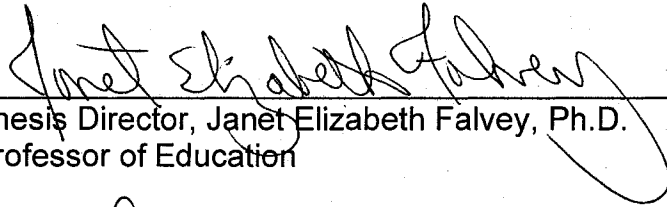
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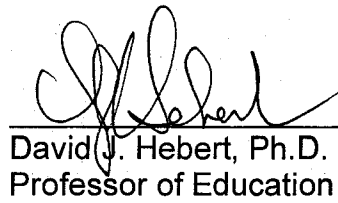
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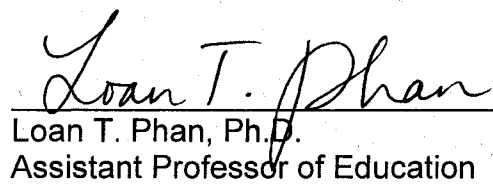
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ABSTRACT

ATTACHMENT BOND, PARENTAL DEATH, AND PARENTAL DIVORCE AS PREDICTIVE VARIABLES OF DEPRESSION

By

Jason R. Baker

University of New Hampshire, May, 2007

Discussions regarding the topics of attachment and loss are ubiquitous and cannot be avoided. Losing a loved one—especially a parent—to death or divorce is difficult at any age, perhaps most difficult during the age of adolescence. Depression is a common product of such loss. A study was conducted that attempted to look at the quality of attachment between the child and primary caregiver, along with the any possible parent loss, and their implications for the prevalence of depression. Data on 170 students at a major university in the Northeast was collected. A moderately strong negative correlation existed between attachment and depression, indicating that stronger attachment bonds were positively related to lower depression scores. Parent death and divorce did not serve as mediating factors. These results have implications for the counseling field; depressive diagnoses must be considered in working with individuals reporting low attachment bonds to attachment figures.

CHAPTER 1

INTRODUCTION

Many past researchers and theorists have contended that early childhood experiences and attachment to family and peers are rooted in the heart of many psychological disorders. The intention of this research was to investigate attachment quality and parental loss (death or divorce) as potential mediating factors of depression in later life.

Rationale for Study

Death, divorce, and other forms of parent loss such as abandonment are all too common themes for many children and families. Parent loss and its implications must be studied as the number of single-parent homes continues to rise. As of the year 2000, an estimated 13.5 million single parents had custody of 21.7 million children under 21 years of age whose other parent lived somewhere else (U.S. Centers for Disease Control and Prevention, 2003). The emotional pain and psychological disorders that may stem from parent loss may be more prevalent now than ever before.

Studying parent loss and its consequences continues to be important, as death is an ever-present consideration; incurable diseases such as HIV/AIDS and various types of cancer, along with the constant threat of other illness or fatal accidents, make death a reality for all families. In addition, the current research

data has shown that in 2003 the rate of divorce was reported to be roughly 51% (U.S. Centers for Disease Control and Prevention, 2003).

Clinical implications: Krueger's View

As seen through the evidence of past research, parent death and divorce are at record high numbers (U.S. Centers for Disease Control and Prevention, 2003). Studying the effects these losses have on children is imperative in mental health professions. Attachment theorists argue that intimate attachments are necessary in normal functioning, and that separation, loss and mourning can have a profound impact on child development.

Krueger (1983) uses the Freudian psychosexual stages of development to argue that the effects of parental loss are contingent on the stage at which the loss occurs. An underlying theme in Krueger's work is that depression is often the result of untreated occurrences of parent loss. As therapists, Krueger encourages that we promote the ability of clients to perceive their loss as real, and that it is permanent and irreversible. To experience loss alone clients usually develop a sense of denial, after which the onset of depression typically becomes clear. "Depression is delayed until there is perception and acknowledgment of the extent and meaning of the loss" (Krueger, 1983, p. 590). In therapeutically helping the child mourn the loss of a parent, this depression can be avoided and growth can resume within the client. "The energies concentrated on denial are then freed to resume development on those aspects frozen in developmental time" (Krueger, 1983, p. 590). A large responsibility is placed on counseling professionals to help clients perceive parent loss as real and irreversible.

Depressive reactions to parent loss – according to Krueger – can be avoided if the individual's psychic energies, which are typically focused on grief and denial, are positively restructured to focus on growth.

Proposed Research

Included here are the definitions of specific terms, subproblems to the main research question, research hypotheses, assumptions that are made regarding the research process, and limitations to the study.

Definitions

Before continuing further it would be beneficial to set forth some important terms that will be used throughout the research and to explain them in further detail.

Attachment is a concept made popular through John Bowlby's (1972) work regarding attachment theory. The term refers to the empirically observed instinctual bond a child has with the primary caregiver (typically the mother) and the behaviors and affections portrayed between the pair that are a result of this bond.

An attachment style refers to the terminology created by Mary Ainsworth and her work with the Strange Situation. The Strange Situation was an experimental manipulation in which the primary caregiver (typically the mother) and child were observed while in a play room. The interactions were recorded and then a stranger was introduced into the setting. The mother would leave, the child's reaction would be recorded, and then the mother would later reenter, with the child's behaviors under constant scrutiny. As a result of Ainsworth's work,

three categories (known as attachment styles) were created. The attachment style is a classification given to a child based on these patterns of attachment behaviors displayed in the instinctual affectional bond between child and caregiver (Ainsworth, Blehar, Waters, & Wall, 1978).

Securely attached (secure attachment) children are reported to seek out their mother during times of distress, display confidence toward her parenting abilities, become distressed when she exits the room, and happily greet the mother and be easily comforted by her upon her return. Securely attached children show contentment while in the presence of the caregiver.

Avoidant attached (insecure attachment) children are less dependent on their mother, are significantly clingier to the mother yet sometimes attack her with aggression, show some level of distress on her departure, and generally do not show interest upon her return. Avoidant attached children often seem to have few affective responses to the primary caregiver.

Ambivalently attached—also known as *anxious-ambivalent* attachment—(insecure attachment) children are classified as the most anxious; overly clingy, upset at the mother's departure and, despite calling for the mother to return, often display resistance to warm embrace or soothing upon their reentry (Ainsworth et al., 1978). Ambivalence may reflect a struggle between conflicting attitudes and feelings, which could in turn stimulate a depressive state.

Parent loss—For the purposes of this study, parent loss is defined as the absence of a parent from a family in which he or she was once present. To say that a participant has experienced parent loss means that he/she was once in the

presence of the parent, had formed an attachment, and later experienced a disruption in the family system by losing contact with that parent. The disruption could have resulted from death or divorce.

Research Question

Does a relationship exist between the quality of attachment between child and parent and the prevalence of depression, and how do parent death and divorce contribute as mediating factors?

Sub-problems

Several sub-problems are related to the core research question.

Subproblem 1 – The first sub-problem was to construct a demographic questionnaire that could accurately obtain data pertaining to the participant's age, race, and familial background. This information was needed to study gender differences, age differences, and potential differences across different cultures.

Sub-problem 2 – The second sub-problem to be addressed was to assess the possibility of parent loss experienced by the participant. This data was used in later analysis to compute a correlation between attachment and depression.

Sub-problem 3 – Another sub-problem was to analyze the attachment style and attachment behaviors a participant has with respect to the lost parent.

Sub-problem 4 – Sub-problem four was similar to the third subproblem, except the challenge in this case was to measure the level of depression, or depression-related attitudes and behaviors that are present within the participant.

Sub-problem 5 – The fifth sub-problem was to analyze and interpret the gathered data so as to evaluate potential relationships between parent loss and depression, while taking the demographic data into consideration.

Hypotheses

Two initial research hypotheses are made regarding the outcomes of this study:

1. The quality of the attachment bond between child and primary caregiver is negatively related to the prevalence of depression; developing this further, stronger attachment bonds will indicate lower levels of depression.
2. Parent loss to death and divorce serve as mediating factors in the prevalence of reported depression.

Assumptions

In order to successfully study this research question, several pieces of information were taken for granted.

Assumption 1 - It was assumed that the frequency of parental loss is high enough to warrant a study. If parent loss (death or divorce) did not occur enough in everyday life, this study would be rendered useless.

Assumption 2 – The major Northeast University from where the study will be drawn is host to a statistically significant number of students who have experienced parent loss.

Assumption 3 - An attachment bond exists between the participant and primary caregiver. The details surrounding this affectional bond can be recalled by the participant, and information will be readily available to the researcher.

Assumption 4 – It is assumed that depression is a commonly understood and accepted result of traumatic loss. Studying the prevalence of depression after experiencing parent loss is thus a worthwhile course of action.

Assumption 5 – Participant responses were honest and truthful.

Delimitations

This correlational study does not draw a causal inference between attachment and depression or parent loss and depression. In other words, there is no intention of creating a cause-effect relationship such as “Anxious-ambivalent attached children who experience parent loss will show signs of clinical depression” or “Securely attached children are not depressed given the attachment bond to their primary caregiver.”

As this study was only performed at one major university in the Northeast, generalizations cannot be made regarding the entire college population. This particular university, in addition to the state in which it belongs, is characterized as having low levels of cultural diversity. To make a global generalization that as a result of this data that all college students will tend to act in the same manner as those from this institution would be inaccurate, as a sample representative to the overall population was not utilized.

Parent loss was described as the death or divorce of a parental figure. It must be understood that a “replacement” parent figure may have replaced the lost parent (for example, a parent remarrying).

The data collected in this study was limited by the responses of its participants. Although it is assumed that the participants answered all items honestly and truthfully, there was no guarantee that this occurred. Social desirability and the need to answer in a manner that the participant deems as socially acceptable are always possibilities.

The sample size was limited due to the fact that data on parent loss was only gathered from those who indicated that they had experienced some form of parent loss.

Summary

The research question described is whether or not we can determine a correlation between the attachment bond between child and primary caregiver and the prevalence of reported present depression; in addition, the loss of the primary caregiver (to either death or divorce) are analyzed as possible mediating factors to depression. Hypotheses were formulated that stronger levels of attachment to a parent would correlate with depression, and that the parental death and divorce would serve as mediating factors.

CHAPTER 2

REVIEW OF LITERATURE

This research is concerned with analyzing the correlation between attachment bond between a child and lost parent with the prevalence of depression. As a result, the literature reviewed will be concerned primarily with attachment theory, attachment styles, and parent loss.

Attachment

Attachment is the most fundamental and important topic of discussion in terms of this research question. This work laid the foundation for the formulation of attachment styles (Ainsworth et al., 1978). In order to grasp the concept of attachment styles, attachment in general must first be understood.

Development of a theory

Attachment theory is deeply rooted in the work of John Bowlby who, through his work in a child guidance clinic, began to question the nature of psychological disorder. As guidance center workers performed intake assessments that contained items referring to the household environment of each client, they failed to recognize critical environmental factors of psychological importance. While the items focused on tangible issues such as parental alcoholism, upkeep of the house, and financial status, they neglected to gather information on the emotional bonds between the parents and child.

Believing that hereditary difficulties could serve as contributing factors in emotional disturbance, Bowlby claimed that the environment would first have to serve as an aggravating factor, inducing these hereditary predispositions. Bowlby (1940) found two environmental factors that were pivotal in early childhood: (1) the death of or prolonged separation from the mother, and (2) the mother's emotional attitude toward the child.

Bowlby was intrigued by the ethos of humankind, claiming that the work of ethologists (studying animal behavior) must somehow apply to human beings. As animals exhibit bonding behaviors, so must humans. This attachment theorist disputed the conventional belief of his time that children are only interested in the mother because she is the feeder and caregiver. Unfortunately for Bowlby, behaviorists were able to apply all of his early research findings to their theoretical frameworks; thus he was unable to formulate any convincing arguments in support of his initial contentions (Bowlby, 1972).

Bowlby turned to ethology for an explanation of his claims. He argued that infant behaviors of sucking, clinging, crying, following/mimicking, and smiling are all instinctual and intentional; the goal of these behaviors is to keep the mother in close proximity. To describe the instinctual mother-child bond, Bowlby introduced the term *attachment*.

Different from bonding—which infers a direct and real-time event—attachment refers to a complex process that is in a constant state of development. To understand attachment, one might find it helpful to compare it to

our idea of love (Karen, 1994). In his own words, Bowlby (1980) describes ideas behind the formulation of attachment theory:

. . . I have been developing a paradigm that, whilst incorporating much psychoanalytic thinking, differs from the traditional one in adopting a number of principles that derive from the relatively new disciplines of ethology and control theory. By doing so, the new paradigm [attachment theory] is enabled to dispense with many abstract concepts, including those of psychic energy and drive, and to forge links with cognitive psychology. (p. 38)

Conceptual Framework

An advantage of Bowlby's proposed paradigm is that it facilitates a new way of conceptualizing the human ability to make strong emotional bonds to particular people/objects. It also offers a new way of explaining many forms of emotional distress and personality disorder, including anxiety, anger, emotional detachment (unexpected separation or loss), and depression (Bowlby, 1980).

Bowlby (1980) states that the feelings of attachment can be generalized: during the first year of life, the child is gradually able to display a range of various *attachment behaviors*. *Attachment behavior* is considered to be any form of behavior that results in a personal maintaining of close contact to a preferred individual. As long as this attachment figure remains accessible and responsive to the individual, the attachment behavior may be limited to something as simple as an auditory or visual check, or the occasional smile or glimpse. In the instance that an attachment figure is not responding to the individual, he/she may engage in more aggressive behaviors, including following or clinging and calling or crying. These behaviors are likely to elicit caregiving by the attachment figure.

Attachment behavior, according to Bowlby (1980), is its own entity with a unique dynamic. It cannot be grouped together with other behaviors such as feeding behavior and sexual behavior, even if those behaviors may appear similar. It must also be recognized that attachment behavior is of equal significance, if not more significant than other behaviors.

In healthy human development, attachment behavior leads to the development of affectional bonds or attachment, at first between the child and parent and later between the adult and other adults. The attachment theorist claims that the forms of behavior and the bonds to which they lead are present and active throughout the entire course of the life cycle, and by no means confined to childhood only.

Attachment behavior is instinctual (Bowlby, 1980). Like other instinctual behaviors, attachment is managed by goal-oriented behavior systems that are homeostatic. As homeostatic systems are highly structured, constant feedback is given and any discrepancies between the initial design of the behavior system and its current performance can be found; behavior is modified accordingly. Planning and implementing goal-oriented behavior requires the use of representational models of both the self's capabilities and of relevant environmental features (Bowlby, 1980). In this context, the goal of attachment behavior is to maintain a specific closeness and communication with certain attachment figures.

Attachment behaviors are used only when required. Thus the behavior systems mediating attachment behavior are activated only under certain

circumstances, such as strangeness, fatigue, frightening scenarios, and absence or unresponsiveness of the attachment figure (Bowlby, 1980). Conversely, the use of attachment behaviors is terminated under more familiar circumstances, such as recognizable environment and exposure to the attachment figure. When attachment behavior has been aroused, termination may require touching, clinging, or active reassurance by the attachment figure.

Many intense human emotions arise during the formation, maintenance, disruption, or renewal of attachment relationships. The formation of an affective bond can be described as falling in love and the maintenance of a bond as continuing to love someone. Anxiety is provoked by the threat of losing an emotional bond, and sorrow is seen by the actual loss of an attachment figure. All four situations (formation, maintenance, disruption, or renewal of attachment), according to Bowlby, can arouse anger. A sense of security is experienced during a prolonged period of uninterrupted attachment; the renewal of an old attachment is characterized by bliss. "Because such emotions are usually a reflection of the state of a person's affectional bonds, the psychology and psychopathology of emotion are found to be in large part the psychology and psychopathology of affectional bonds" (Bowlby, 1980, p. 40).

Attachment behavior is prevalent in many species over the course of their evolution, as it contributes to the survival of the individual. This survival is created by constant contact with the caregiver, in turn reducing the risk of being exposed to harm—such as cold, hunger, or exposure to predators (Bowlby, 1980; Karen, 1994).

The complimentary behavior to attachment behavior, that is, the behavior of protecting the attached individual, is considered *caregiving*. The caregiver is often a parent, and is sometimes another adult; the care is usually given to a child or adolescent but may be shown by one adult towards another, especially in times of illness or infirmity.

Given the instinctual nature of attachment behavior, along with the potential for its activity during any stage of human development, "...it is held a grave error to suppose that, when active in an adult, attachment behaviour is indicative either of pathology or of regression to immature behavior" (Bowlby, 1980, p. 41).

Psychopathology is regarded as a result of a person's psychological development having taken a deviant course, as opposed to his/her suffering an obsession with, or regression to, an earlier stage of development. As a result, disturbed patterns of attachment behavior can be present at any age, given Bowlby's explanation of psychopathology. Perhaps the most common form of psychological disturbance is the "... over-ready elicitation of attachment behaviour, resulting in anxious attachment" (Bowlby, 1980, p. 41). Another popular form of psychological disturbance is the partial or total shutdown of attachment behavior.

The experiences an attached individual has with the attachment figure during the years of immaturity—Infancy, childhood, and adolescence—are the primary determinants of the specific pathway along which an individual's attachment behavior develops.

Finally, the manner in which the individual's attachment behavior becomes organized within his or her personality has a significant effect on the pattern of affectional bonds he or she makes throughout their life. This conceptual framework serves as a device for easily indicating how the effects of loss can be conceived.

The Strange Situation

Strongly supporting Bowlby's theory of attachment were the findings reported by Ainsworth and colleagues (1978) on their implementation of the Strange Situation procedure. Their groundbreaking study was designed with the intention of gathering data on the individual differences in attachment behaviors. The procedure was devised as a standardized laboratory situation in which the experimenters could observe the behavior of infants in response to their mothers' presence and absence. Beyond their initial expectations, the Strange Situation has proved useful for the identification and exploration of individual differences in the quality of infant-mother attachment. After extensive work and countless implementations of the Strange Situation, Ainsworth and her research partners were able to categorize each child into one of three specific attachment groups—initially labeled groups A, B, C and later given more formal names (thus creating three attachment styles).

The initial implementation of the Strange Situation included a sample of 106 infants and their caregivers (the mother in each case), all from white, middle-class, Baltimore area families and all approximately one year of age. The procedure was divided into eight parts or episodes. Throughout the experiment

the infant's behavior was recorded (through a one-way mirror) while he/she was given the freedom to play with toys and explore the large examination room; changes in behavior were noted when the infant was introduced to a stranger, reintroduced to the mother, and left alone in isolation. The eight phases or episodes of the experiment are discussed in more detail. Except for the first episode (which lasts thirty seconds), each is designed to have a duration of three minutes.

Episode 1

This episode is introductory and brief. The mother and baby are introduced to the examination room and the mother is instructed to carry her child into the room and place him/her in the center. As this is done, an observer notes the baby's reaction to the foreign environment while in the safety of the mother's arms.

Episode 2

The baby is placed in the middle of the room between the stranger's (empty) and mother's (occupied) chairs facing a collection of toys. The mother then takes her seat and pretends to be occupied with reading. It is expected that the child will explore the toys and become comfortable with the room on his or her own; however, the mother is instructed to intervene if after the first two minutes the child does not begin to play independently.

The focus of the remote observer is on the amount and nature of the infant's exploration—locomotor, manipulatory, and visual—and on the strength and nature of the child's orientation to the mother.

Episode 3

The female stranger is introduced to the examination room and immediately takes her designated seat. The mother and stranger remain silent for one minute and then are given a signal to initiate conversation; one minute later the stranger begins to converse with the child. The mother then leaves the room after another minute has elapsed.

The focus of observation is on the amount and type of attention the baby pays to the stranger; this data is compared to that of the mother-baby attention patterns.

Episode 4

The interaction between stranger and child is reduced once the mother has left the room, affording the child the chance to comprehend that Mother has made her exit, if he/she has not already noticed. If the baby continues to explore the room, the stranger is instructed to return to her seat and is to respond to any advances the baby may make. This is done in order to compare the amount of exploration the child performs in the care of the stranger versus the biological mother.

If the child begins to cry, the stranger will intervene and try to distract him/her with a toy; if this is unsuccessful, the stranger is instructed to console the baby by means of physical contact or verbal contact if the baby is resistant. If this is successful, the child is placed down and once again able to explore the room.

This episode lasts three minutes but can be cut short if the baby cannot be comforted by the stranger. In these instances the mother is reintroduced to the environment and allowed to placate her child.

The intention of this episode is to measure the amount of child exploration in the presence of the stranger versus that of the caregiver. The response of the baby in the wake of caregiver absence is also noted. The extent of crying, search behavior, and any present distress is of importance, along with the child's response to any stranger consolation that may be warranted.

Episode 5

The mother approaches the door of the examination room and calls for her child; any response by the child is observed. The mother enters the room and pauses for another potential reaction by the child. After fully entering the room the mother is instructed to make the baby comfortable again, returning him/her to the baseline observed at the start of the experiment. As this occurs, the stranger unobtrusively leaves the room. When the baby is calm, the mother retreats to the door, says "bye-bye" to her child, and exits once more.

The behaviors observed in this episode are the baby's response to the mother after her absence and the interaction they share after her return.

Episode 6

The baby is left alone in the room for three minutes and is allowed to resume exploration. Any crying is disregarded, as the infant is given the chance to recover and resume exploration. If the distress continues to escalate, the mother is instructed to reenter the room.

The behaviors to be observed in this episode are the exploratory patterns of the child (if any) while left alone in an unfamiliar situation and the reactions to the mother's departure—crying, searching, and tension movements for example.

Episode 7

At the end of Episode 6, the same stranger approaches the examination room door and speaks loudly so that the baby can hear the voice. The stranger then enters the room, and any infant responses are noted. If the baby is crying upon the stranger's entry, she is instructed to soothe the child; physical contact is permitted as long as the baby is not resistant. If the baby is pacified by the stranger, play will resume as the stranger returns to her chair.

If the baby is not distressed upon the stranger's entry, he/she will be invited to approach the stranger freely. If the baby refuses to approach the stranger, then she is instructed to approach the baby and initiate play. In any situation, the stranger must respond to any signal made by the baby to initiate play; the stranger's behavior is geared toward the child's behavior.

The observer is interested in the child's responses to the stranger—how readily s/he can be soothed by her, whether s/he accepts her contact, and whether s/he will accept her invitation to play. The responses are compared to similar scenarios with the mother.

Episode 8

The mother is reintroduced to the situation and pauses in order for the observer to note the response of the child. The mother picks up the baby as the stranger exits (Ainsworth et al., 1978).

Precursor to Attachment Styles

Extensive analysis of the data collected from numerous administrations of the Strange Situation has yielded consistent, categorical results. Prior to the creation of the classification terms of secure attachment, anxious-ambivalent attachment, and avoidant attachment, Ainsworth and partners (1978) simply categorized each participant into three groups: groups A, B, and C.

Group A

The description of the Group A attachment pattern is the ancestor of the *avoidant* attachment style. The paradox of Group A babies is that they tended to avoid their mother's contact when in the laboratory environment of the examination room, while showing distress in times of parent-absence when in the home.

The key to understanding Group-A behavior seemed obviously to lie in their avoidance of the mother in those very episodes of the Strange Situation in which the attachment behavior of other babies was activated at high intensity—in the reunion episodes. (Ainsworth et al., 1978, p. 316)

Ainsworth and partners argue that the avoidance of the mother in her presence, the nonexistence of distress in her absence during the Strange Situation, and detachment during extended periods of separation all serve a defensive function. The major theory behind the development of this pattern of attachment is that the mothers of Group A babies tend to demonstrate trends of rejection. "One major way in which they rejected their infants was to rebuff infant desire for close bodily contact. These mothers themselves tended to find close contact with their babies aversive" (Ainsworth et al., 1978, p. 316).

Group B

The description of the Group B attachment pattern is the ancestor of the *secure* attachment style. The typical Group B attachment individual displayed trends towards being more positive towards their mother than infants of Groups A and C. The interaction between mother and child was more harmonious than in the other classification groups; infants were more cooperative and willing to comply with the caregiver's requests.

From this we may infer that his affect toward his mother is more positive and less ambivalent and conflicted. This inference is supported by the fact that the infants in the other two groups cry more and specifically show more separation disturbance at home than the Group-B infants—which we interpret to mean that Group-B infants are generally less anxious. (Ainsworth et al., 1978, p. 311)

It is also noteworthy that Group B children appeared positive and lacked conflict in their responses to close bodily contact with the mother, both in the home setting and in the Strange Situation.

The authors have argued that the reason for the attachment style is the imparting of a secure base from the attachment figure in which the attached individual can explore and become comfortable with an unfamiliar environment. The security and warmth provided by the attachment figure, along with the opportunity for free play, allows the child to begin the separation-individuation process. Evidence for this claim is provided by the fact that Group B babies were not likely to cry when the mother left the room; even when the mother is out of sight, as in the Strange Situation, the child demonstrated that s/he believed the mother is still accessible and would be responsive should s/he attempt to seek her out or signal for her.

Group C

The description of the Group C attachment pattern is the ancestor of the *anxious-ambivalent* attachment style. Group C babies were the fewest in number; however, certain aspects of their experience in the Strange Situation remain clear and make them worthy of classification into their own unique attachment group. Group C individuals are anxious about their attachment to the caregiver. Infants in this classification tend to cry more than Group B babies but less than Group A babies; of the three groups, this group tends to manifest the most separation anxiety when facing abandonment from the attachment figure. "Because they are chronically anxious in relation to the mother, they tend to respond to the mother's departures in the separation episodes with immediate and intense distress; their attachment behavior has a low threshold for high-intensity activation" (Ainsworth et al., 1978, pp. 314-315).

Despite the amount of distress and anxiety felt during periods of caregiver absence, the attachment individuals in this category tend to show strong ambivalence towards the mother and her offering of physical contact upon returning. Angry protest is characteristic of the baby when the mother's consolation is perceived as untimely; however, angry outbursts are intensified when he or she is not picked up when desired or put down when the time is right.

The caregivers of Group C babies are much less responsive to crying and communication signals than those of Group B babies. Conversely, Group C mothers are not as rejecting as Group A mothers; in particular they seem to have no repugnance to physical contact with the child. Consequently, Ainsworth and

colleagues state that there is no obvious reason to expect that Group C babies would show the kind of approach-avoidance conflict that is evident in Group A babies (Ainsworth et al., 1978).

Attachment Styles

Supplementing Bowlby's work, Hazan and Shaver (1987) have contended that nearly all infants negotiate some form of attachment relationship. Despite this fact, it is theorized that particularized differences in the behaviors of primary caregivers are the driving force in determining the predominant attachment styles of their offspring. In their 1987 study, Hazan and Shaver translated Ainsworth et al.'s (1978) three attachment styles—which were formulated based on the studying of infants—into adult equivalents. A major criticism of this translation – according to Roberts, Gotlib, and Kassel (1996)—is that the strict one-to-one translation of each infantilized attachment style into an adult counterpart fails to acknowledge the potential blending among attachment styles. As an example, the researchers contended the high probability that an adult may identify mostly with the *secure* attachment style, however, claiming *anxious-ambivalent* to be a close second choice; oppositely another adult may identify with the *secure* attachment style but instead rank the *avoidant* attachment style as a close second. In response to these discrepancies, many dimensional scales of adult attachment have been created (Roberts, Gotlib, & Kassel, 1996). These instruments measure the extent to which participants fall on continuous measures of the varying attachment styles—for example, how comfortable an individual feels in becoming close to attachment figures. Collins and Read (1990)

have found in a meta-analysis that these dimensional rating scales exhibit favorable psychometric properties; high internal consistency and significant test-retest correlations have been found over intervals of up to two months.

Main and Weston (1981) did a follow-up study to that of Ainsworth et al.'s (1978) *Strange Situation* in which they sought to answer several questions that they developed in response to the original study. The results of Main and Weston's study concluded that their category distribution for mothers and fathers were highly comparable, meaning that their hypothesis that infant strange situation behaviors toward the father is highly comparable to that of the mother is highly supported. It was also concluded that forced categorization into an attachment style may not be desirable as the child does not possess enough overwhelming characteristics of any attachment style to warrant placement. Instead, forced classification may lead to erroneous placement of a non-secure child into a *secure* classification.

In the same study (Main & Weston, 1981), it was found that infants that were classified as non-secure with the mother, but secure with the father, tended to appear to test higher in readiness to form friendly relationships than infants classified as non-secure with both maternal and paternal figures. The results have led the researchers to claim although infants may not be classified as *securely attached* to the maternal figure, that differing kinds of relationships with individuals whom the child has prolonged interaction (i.e., the father or close relative) can also significantly influence the child's capacity to create interactions with new persons. Research findings also indicate that abused/neglected

children tend to form *insecure* attachment styles to the primary caregiver; unusually high degrees of avoidance and aggression are noted within these children.

George and Main (1979) argue that early intervention in the lives of the abused/neglected children is crucial to their well-being; they claim that any *insecure* relationship can be corrected with the early addition of a *secure* relationship to a “replacement” figure. It is on these research findings, coupled with their own results, that Main and Weston (1981) claim that the negative products of an insecure relationship can be minimized by the substitution of a secure relationship: “On the basis of the present study we suggest both that highly different relationships can be formed and that the ‘effects’ of an insecure relationship can be mitigated by a secure relationship” (p. 939).

A similar study was performed by Frascarolo (2004) in an attempt to compare the child’s responses to the mother in the Strange Situation to responses the child would make to the father in the identical situation. After conducting the Strange Situation with the child-mother pair, the procedure was implemented a subsequent time, on this occasion studying the child-father pair. The results have shown that the attachment behaviors of children towards a traditional father—one who based on family history is rarely available to the child as a result of working many hours outside the household—greatly deviated from the child-mother behaviors. On the other hand, the attachment behaviors of the children with nontraditional fathers—fathers who either are the primary caregiver or mimic those roles—did not differ from the attachment behaviors between child

and mother. The results of this study strengthen the assumptions made by Ainsworth and partners (1978), and also imply that the father, although he may not be the primary caregiver, cannot be ruled out of attachment considerations. He, too, has a significant impact on the formulation of specific attachment behaviors.

Parent Loss

Having discussed the importance of parental figures on the development of affectional bonds and attachment behaviors, it is now important to discuss in detail the effects parent loss may have on these attachment considerations. First, literature will be cited that explains the need for investigating this topic, followed by theories that have been proposed and studies that have been implemented in an attempt to analyze the consequences of parent loss. Parent loss is—by definition—the loss of an attachment figure. Therefore, emotional repercussions may be elicited, such as depression.

Need for Investigation

HIV/AIDS and varying forms of cancer contribute to the ever rising number of instances of parent loss. In studying the development of emotional distress and problem behaviors in children prior to the death of a parent with HIV/AIDS and two years after their death, Rotheram-Borus, Stein, and Lin (2001) concluded that emotional distress and problem behavior have significantly increased. In this study, emotional distress included phobic anxiety and depression. Problem behaviors included alcohol, tobacco, and other drug use; criminal behavior; and sexual activity. According to Koocher (1986), one-third of

all Americans born in 1985 are believed to, at some point in their life, develop some form of malignancy (excluding skin cancer). One-fifth of these people are predicted to be lost as a direct result of cancer. This statistic implies that cases of parent loss may increase in the upcoming years, as those born in 1985 will soon be approaching the age of parenthood. However, new and advanced treatment options must be taken into account as a countermeasure to this statistic.

Based on provisional data for births, marriages, divorces, and deaths released by the U.S. Centers for Disease Control and Prevention (2003), 3.8 out of 7.5 million marriages in 2003 have ended in divorce (roughly 51%). With the divorce rate teetering around fifty-percent, the number of single-family homes and incidents of parent loss (here defined as the loss of an in-home biological parent to divorce) are bound to increase. It must also be understood that although parent divorce is defined as the ending of parental marriage and the departure of at least one figure from the home, that “replacement” parents are often implemented (such as a step-parent or foster parent). It is also noted that contact to the lost parent does not necessarily end after divorce.

Theoretical Foundations: Bowlby

Given the proposed attachment theory by Bowlby (1980), the theorist has gone on to argue that grieving and mourning are natural phenomena that occur after the loss of, separation from, or detachment from an attachment figure. It is argued that this holds true for young children as well as for older, more mature children. The processes of grieving and mourning are not concrete or predetermined, and many factors that influence attachment of the individual to

the attachment figure also affect the courses of action that grieving and mourning involve. Such factors include gender of the attached individual, gender of the attachment figure, and environmental conditions prior to the disruption.

Theoretical Foundations: Krueger

Krueger (1983) uses the Freudian psychosexual stages of development to argue that the effects of parental loss are contingent on the stage at which the loss occurs. Krueger views the loss as a specific form of neurosis, occurring at one time within the child during a specific stage of development, which will continue to have adverse effects throughout life (leading to the onset of clinical depression described earlier). In the pre-Oedipal stage of development (usually between the ages of two to four years) parental loss “. . . more profoundly affects narcissistic development and object relationships” (Krueger, 1983, p. 585). Children in the pre-Oedipal stage usually develop fantasies with the underlying theme that the lost parent will someday return to the child; the parents are fantasized as being very powerful figures. These dreams are driven by the fact that children at this age are unable to comprehend the idea of permanent or absolute loss.

Krueger claims that during the Oedipal stage of child development, it is important to take into account the gender of the child and the gender of the lost parent. When loss occurs with the child's parent of opposite gender, the child tends to view him/herself as valueless, defective, or incapable of experiencing love; self-worth comes into question. The loss of a parent of the same gender is usually characterized by the onset of self-blame and guilt in the explanation of

why the parent was lost. In individual psychoanalytic therapy, Krueger claims that “[t]he elements of the fantasy constructed as explanations for reason and cause of the departure are often received in the transference upon a separation from the therapist” (Krueger, 1983, p. 586).

Latency-aged children experience parental departure with a severely increased experience of sadness, guilt, and grief. Fantasies in this stage are usually driven by a perceived responsibility for the loss and an attempt to reconcile differences that may have escalated during the child’s time with the parent; the child becomes cognitively aware of the emotional disturbances that occur as a result of such loss.

Parental loss during adolescence is typically characterized by the development of rebelliousness, competition, jealousy, rivalry, and struggles with authority. The teenage child acts out fantasies of aggression; guilt is not much of an issue in this stage of development.

An underlying theme in Krueger’s work is that depression is often the result of untreated occurrences of parent loss. As therapists, Krueger encourages that we promote the idea that clients are able to perceive their loss as real, permanent and irreversible. To experience loss alone clients usually develop a sense of denial, after which the onset of depression typically becomes clear. “Depression is delayed until there is perception and acknowledgment of the extent and meaning of the loss” (Krueger, 1983, p. 590). In helping the child mourn the loss of the parent, this depression can be avoided and growth can resume within the client. “The energies concentrated on denial are then freed to

resume development on those aspects frozen in developmental time” (Krueger, 1983, p. 590).

Mediating Factors Affecting Response to Parental Loss

A substantial amount of research on the effects of parent loss has centered on the notion of existing mediating factors between the variables of attachment and depression. For example, McLeod (1991) hypothesized that the observed relationships between parental loss and the onset of depression can be explained by the mediating factors of current socioeconomic status and marital status of the attached individual. Inferences drawn from the results of this and other related studies tend to minimize the importance of the caregiver-child attachment bond. However, it is proposed by this researcher that the type of attachment bond the individual had with the attachment figure prior to the loss will be the most effective indicator of the prevalence of any resulting depression. Any effects of McLeod’s “mediating factors”—low socioeconomic status and poor marriage quality—may simply affect the severity of the resulting depression.

Perhaps the reason for this claim is that much of the research has used adult participants versus participants in the ages of childhood, adolescence, or even infancy, although the focus of the research is typically on childhood (Stillion & Wass, 1984). The reason:

However, the death of a parent is much more likely to occur when children are middle-aged than when they are minors. Only 1 in 10 children has lost a parent by age 25 but by age 54, 50 percent of children have lost both parents, and by age 62, 75 percent have lost both parents. (Umberson & Chen, 1994, p. 152)

Mature individuals appear to have more observable behaviors that can be attributed to the onset of depression, leading researchers to believe that mediating factors do exist. However, Ainsworth and colleagues (1978) have shown that attached individuals as young as infants show signs of anxiety and depression within a three minute episode of the Strange Situation in which the attached figure is absent. In these moments, mediating variables cannot be measured, and the attached (especially anxious-ambivalent attached) individual appears to show signs of anxiety and depression within moments after the detachment.

Tucker, Feldman, Schwartz, Criqui, Tomlinson-Keasey, Wingard and Martin (1997) examined mediating factors of parental death and divorce. The relationship between parental death and depression of the offspring appeared to be mediated by lower educational successes, less involvement with service activities, and an increased chance of divorce. Amato (1993) claimed that parental divorce impacts well-being by increasing the probability of other stressors; it is implied that this claim would hold true for parental death as well. For example, divorce and death can lead to financial restrictions.

Other potential mediating factors include lower levels of self-acceptance, fewer positive peer relations with others, lower environmental mastery, and higher numbers of acute and chronic health problems. In a 2000 study, Maier and Lachman found that parental divorce significantly predicted lower levels of: (1) self-acceptance, (2) positive peer relations, and (3) environmental mastery, along with higher levels of acute and chronic health problems among male

participants. Women reported similar results, although the relationships between divorce and the previous listed mediating factors were not significant.

Just as certain factors can influence the onset of depression following the loss of an attachment figure, some mediating factors can influence the affectional bond between attached individual and attachment figure. As Ainsworth and colleagues (1978) touched upon in their research findings for the Strange Situation, the behavior and actions caregivers display toward their children will greatly influence the type of attachment bond that develops. Umberson and Chen (1994) found that individuals for whom relationships with parents were more positive and salient prior to detachment were more adversely affected by parental loss. An alcoholic's experience of the loss of a more emotionally supportive parent was correlated with the heightened abuse of alcohol post-parent loss. Conversely, the alcohol consumption of abusers drastically decreased after experiencing the loss of an emotionally unsupportive or abusive caregiver.

Death versus Divorce

Different from the common trends in this field of research, Mack (2001) proposed a hypothesis that the two major forms of parent loss—death and divorce—are different. Reverberations of parental divorce are significantly different from those of parental death. Divorce is parent loss. Although it is often the case that the exposure to the lost parent is not completely eliminated in a divorce, the reduction in exposure to this attachment bond has been shown to elicit anger and hostility. Prolonged separation from an attachment figure can

lead to frustration and hostility, and these responses are likely to affect the individual's future marital situation (Mack, 2001). Alternatively, parental death is not characterized by anger and hostility, but instead by a decline in psychological well-being.

When compared to adults raised in intact families, adults who experienced parental death report lower levels of self-confidence and higher levels of depression. One interpretation of these results is that children respond to the permanent separation from an attachment figure of parental death with despair and sadness. If at the same time they observe similar parental reactions, then it becomes likely that these responses will have negative effects on psychological adjustment that persists into adulthood. (Mack, 2001, p. 438)

Implications for Proposed Research

Although the literature reviewed above did not report identical findings, a pattern emerges showing differences between those who have experienced parent loss and those who have not experienced such loss. Based on the research, it is not clear whether individuals who have experienced parental divorce show signs of depression although there tends to be widespread agreement that individuals who have experienced parental death do report, to some degree, an inclination towards developing signs of depression. Other research by Dowdney (2000), Saldinger, Cain, Porterfield, and Lohnes (2004), and Shmotkin (1999) also report similar findings. Although causation cannot be inferred based on this or any other analysis of research, enough evidence has been found to warrant further exploration in this field.

Remarkably there was not more literature found that attempted to find a relationship between Ainsworth's attachment styles and the prevalence of depression in sufferers of parent loss. It is in this regard that the proposed study

will differ from the majority of literature that has been generated in the past. However, one study was found by Wayment and Vierthaler (2002) that did attempt to find a pattern between attachment style and bereavement reactions. The research concluded, similar to the hypotheses of the proposed study, that anxious-ambivalent attachment showed the strongest correlation to depression (+.44), while avoidant attachment had a correlation of +.18, and secure attachment a correlation of -.18. All correlations were found to be of statistical significance.

Flaws in Existing Research

According to Brennan and Shaver (1998), a disservice has been done to this field of study, because for many years there has been a discrepancy between research methods and research subjects in the domains of attachment and personality disorders. "Ainsworth's and others' attachment research was grounded in orthodox developmental methods: behavioral observations of young children and their parents. In contrast, the study of personality disorders has traditionally relied on the retrospective reports of disturbed adults in therapy" (p. 868). The two domains—behavioral observations of young children and personality disorders of adults—must at some point converge on the same disordered relationship patterns.

Based on this belief, research should commence during infancy. Environmental threats force the infant to invoke freezing, withdrawal, or escape behavior. In a well-functioning goal-oriented partnership between attached individual and attachment figure—as described by Bowlby (1980)—the escape

behavior is usually comprised of retreating to the safety of the attachment figure. The inability to establish this well-functioning relationship may cause the infant to develop "...the chronic perception that help is unavailable when needed, or, at best, is inconsistently available" (Brennan & Shaver, 1998, p. 869). In other words, distress may result from a perceived environmental threat or the perceived lack of support from the attachment figure. A combination of perceived environmental threats and perceived lack of support throughout the course of development will produce the most acute forms of psychopathology.

Contrary to the findings of Brennan and Shaver (1998), Asetline (1996) sought to study the link between parental divorce and adolescent depression. The findings of his research concluded that there is, in fact, a relationship between parental divorce and child depression. Divorce is viewed as a source of numerous secondary problems and stresses that are related to depression, and that alter the child's reactivity to these stresses "... in some cases enhancing, but in other cases mitigating, their depressive effects" (p. 133).

Surprisingly little research was found that investigated a potential link between parent mortality and child suicidal ideation. In a 1995 study, Meshot and Leitner attempted to study this phenomenon. They compared 20 adolescents who had experienced the death of a parent (death-loss group) with 22 adolescents who at the time had not experienced any loss of a parent (control group). The *Interpersonal Repertory Grid* (IRG), measuring fifteen constructs of bipolar disorder, and the *Threat Index* (TIp), measuring forty bipolar constructs were administered (Meshot & Leitner, 1995). For the IRG, the death-loss group

scored significantly lower in comparison to the control group, indicating a possibility for higher death threat; these results were not evident for the TIp.

If death is a complex construct, then these individuals [death-loss group] may have made distinctions that are reflected in the threat scores, especially on the IRG...Perhaps one of the factors that could explain differences on the IRG and TIp is how someone is struggling with the issue of death. (Meshot & Leitner, 1995, p. 581)

CHAPTER 3

METHODOLOGY

The purpose of this study was to analyze the relationship between attachment bond and depression, while also attempting to determine whether parental death and divorce serve as mediating factors in depression. The research hypothesis states that the quality of the attachment between child and primary caregiver will be the most significant predictor of depression in the reporting child, regardless of any reported parent loss. The study was conducted on-site at a major New England University. This chapter describes the methodology.

Participants

The participant pool for this study was composed of 260 undergraduate students at the University. Ideal participants were those who have experienced the loss of a parent somewhat recently. As parent loss is not constant and can occur at any age, data was collected on a substantial number of students. Roughly ten percent of all Americans have experienced the death of a parent by age 25 (Umberson & Chen, 1994), with an estimated 50% of marriages in 2003 ending in divorce (U.S. Centers for Disease Control and Prevention, 2003). Initially, it was unknown how many participants had actually experienced parent loss. Ultimately three participant groups were formed: those who have not experienced parent loss, those who have experienced parent loss through death,

and those who have experienced parent loss through divorce. The goal was to obtain a significantly large sample, with a variety of students reporting both parent loss and no parent loss.

The majority of the participants in this study ranged in age from 18-22 years, although a few non-traditional students reported being somewhat older. The gender composition of the participant pool was expected to be roughly half male and half female. The majority of the subject pool was expected to be composed of mostly European American or Caucasian individuals, given the nature of the student population at this particular institution.

Permission was sought—and granted—on behalf of the Sociology Department to utilize their student population. Students enrolled in the two sampled sections of the introductory sociology course were administered this study in class. It was requested that the study be performed in the classroom and turned in prior to leaving, in an attempt to limit the influence of extraneous variables. The two sections of this class had sizes of 43 and 57 students respectively. Both administrations took place on the same day, at the end of the 10:00 a.m. and 11:00 a.m. classes; participants were given fifteen minutes to respond.

Permission was also granted from one professor in the University's Zoology Department, which proved beneficial in obtaining a large number of data sets from a variety of different students. The study was administered in the human anatomy and physiology class in an identical fashion as with the

sociology courses. The subject pool in this class was 160. The test was administered with fifteen minutes remaining in the 11:00 a.m. class.

Instrumentation

Two assessments were administered in this study, in addition to a demographic questionnaire. The two assessments were: the *Parental Attachment Questionnaire* (PAQ) and the *Center for Epidemiologic Studies Depression Scale* (CES-D).

Demographic Questionnaire

Prior to the implementation of formal assessment, participants were requested to complete a demographic questionnaire (see Appendix B). The information gathered in this questionnaire was used to analyze possible correlations between ethnic and gender variables and the variables of interest (e.g., attachment bond, parent loss, and depression).

Parental Attachment Questionnaire (PAQ)

The PAQ (see Appendix C), created by Kenny (1987), is a 55-item questionnaire designed to assess the conceptualization of attachment, for use with college students in a self-report format. The instructions call for participants to respond to each item on a 5-point Likert scale (1 – *not at all*; 2 – *somewhat*; 3 – *a moderate amount*; 4 – *quite a bit*; and 5 – *very much*) with respect to the parent who they designate as their primary caregiver. The items attempt to gather information on the participants' parent, their relationship with that parent, and their feelings and experiences associated with that parent. For this study the

focus was on the primary caregiver and potential parent loss, if one of a participant's parents was lost to death or divorce.

The PAQ contains three scales, *Affective Quality of Attachment*, *Parental Fostering of Autonomy*, and *Parental Role in Providing Emotional Support*, which were derived from factor analysis. The reliability of the attachment measure was assessed by Kenny (1987) through test-retest and internal consistency methods. Test-retest reliability over a two-week interval was .92 for the measure as a whole and ranged from .82 to .91 for the three scales derived from factor analysis. Cronbach's coefficient alpha was calculated for each of the three scales, yielding coefficients of .96, .88, and .88, respectively.

Internal consistency for the entire measure is Cronbach's alpha of .93 for male college students and .95 for female college students. Evidence of construct validity was obtained by correlating each of the three factor scales with the subscales of the *Moos Family Environment Scale (FES)*. More specifically, significant correlations were obtained between Affective Quality of Attachment on the PAQ and Cohesion ($r = .51, p < .001$) and Moral-Religious Orientation ($r = .36, p < .01$) on the FES, between Parental Fostering of Autonomy on the PAQ and Expressiveness ($r = .33, p < .01$), Independence ($r = .35, p < .01$) and Control ($r = -.40, p < .01$) on the FES, and between Parental Role in Providing Emotional Support on the PAQ and Cohesion ($r = .45, p < .001$) and Expressiveness ($r = .33, p < .01$) on the FES (Kenny, 1990).

Center for Epidemiologic Studies Depression Scale (CES-D)

The CES-D (see Appendix D) is a 20-item self-report scale that is designed to measure depressive symptoms in the general population. Respondents are instructed to answer each item on a four-point Likert scale indicating the number of times in the past week in which they have felt the particular feeling – 0 = rarely or none of the time (less than one day; 1 = some or a little of the time (1-2 days); 2 = occasionally or a moderate amount of the time (3-4 days); and 3 = all of the time (5-7 days). The scale has been tested in household interview surveys and in psychiatric settings, and has been found to be easily understandable to participants. This scale is characterized as being easily accessible, and quick and easy to use. A 1977 report by Radloff explains, in detail, the psychometric properties of the CES-D. However, Radloff (1991) also instituted a retest confirming the findings he had previously reported. In his retest, Radloff confirmed three ranges of scores (minimal depressive symptoms, mild to moderate depressive symptoms, and possibility of major depressive symptoms).

Four subscales exist in the CES-D: (1) *negative affect items*, (2) *positive affect items*, (3) *somatic complaint items*, and (4) *interpersonal relations items*. Internal consistency measures of reliability for each subscale were consistently similar, in comparison to Radloff's 1977 and 1991 tests. A multivariate analysis of variance (MANOVA) confirmed that the same patterns in all four subscales were consistent among retests, with only a few exceptions (Radloff, 1991).

A significant amount of research has confirmed the reliability and validity of the CES-D across different cultures. Perreira, Deeb-Sossa, Harris, and Bollen (2005) performed extensive research on the reliability and validity of the CES-D across twelve ethnocultural groups. With Cronbach's alphas ranging from .85 to .89, the CES-D appears to be highly reliable across all twelve multicultural groups, according to these authors. These reliability estimates are consistent with Cronbach's alpha measured in other samples. Similarly, mean CES-D scores and case rates are comparable to the means and rates found in other studies of adolescent youth (Perreira et al., 2005).

Procedures

The Chairs of the sociology and zoology programs were contacted by the researcher in order to gain permission to access their large student populations. After permission was granted by both department chairs, the researcher obtained permission from professors of the Sociology Department's introductory course and Zoology Department's anatomy and physiology course. The classes were selected due to their class size, demographics, and differing educational backgrounds. The researcher established appropriate times with each professor in which he was given substantial time at the end of class to administer his study to the present students.

All students who agreed to participate in the study were given an informed consent form which they were required to complete prior to assessments (see Appendix E). Participants were told that the objective of the research was to gather information on the attachment bond between parent-child and its

perceived affect on the child's emotional well-being. Social desirability was avoided by not sharing the full purpose of the study—which was to study the attachment bond between a child and parent and its influence on the presence of depression in the child. Students who did not wish to participate were asked to indicate this on the informed consent form, and were then allowed to leave the room after turning in the form to the researcher.

After informed consent forms were collected, the assessments were distributed. The demographic questionnaire, PAQ and CES-D were stapled together, limiting the possibility that the forms could become disorganized.

The researcher did not clarify any items on either the attachment or depression assessments so as to avoid cueing the participant toward a particular response. Any participant confused with a particular item was requested to answer based on his or her best interpretation of the item. Clarifications were made on the demographic questionnaire when needed.

Those who decided to terminate their participation during the study were not discouraged from doing so. Participants wishing to terminate were instructed to bring the test materials to the researcher, who indicated that the information the participant had provided would be destroyed and not used in the final results of the study. The participant was then free to leave.

Participants who completed the study were given a debriefing form containing specific information regarding the purpose of the study, researcher contact information, the opportunity to be informed when the results were

available, counseling services information if needed, and a statement thanking each person for participating (see Appendix F).

Data Analysis

For each participant, scores were calculated on all three sub-scales of the PAQ, the total PAQ, and on the CES-D. To test whether or not the attachment bond and prevalence of depression were related, a Pearson correlation was calculated between total PAQ scores and scores on the CES-D. Pearson correlations were also individually calculated between each of the three PAQ sub-scales in comparison to the CES-D.

A multiple regression was calculated in order to establish which of the three predictor variables: attachment (as scored on the PAQ), parental death, or parental divorce (as identified in the demographic questionnaire) was the strongest predictor of the criterion variable: depression (as scored on the CES-D).

CHAPTER 4

RESULTS

Between the introductory sociology classes and the anatomy and physiology class in which the researcher had permission to gather data, 170 complete data sets were collected, which is 65.4% of the original subject pool. The following results analyze the correlation between attachment bond and depression, while also considering the strongest predictor of depression-attachment bond, parental death, or parental divorce.

Demographics

Of the 170 participants studied, 74 students (43.5%) were found to be 18 years of age, followed by 51 students (30.0%) 19 years of age. The majority of the participant pool ranged in age from 18 to 25 (N = 168, 98.8%), with two outliers of 32 and 43 years of age.

Gender composition of the sample included 122 females (71.8%) and 48 males (28.2%). The ethnic backgrounds of the participants were not significantly diverse, with 160 (94.1%) of the students reporting European American or Caucasian background. Six students declared to be of African American, Asian American, and Native American heritages (2 of each) and 4 students declaring a Latino or Hispanic background.

As was expected, only a small number of participants revealed any form of parent loss. Thirty-six participants (21.2%) reported parent loss, 4 to parental death and 32 to parental divorce. Of the 36 claiming parent loss, 9 respondents were witness to the loss of their mother, 26 to the loss of their father, and 1 to the loss of both parents.

In response to the question of whether or not a child who has experienced parental divorce retained contact with the lost parent, 24 of 32 participants answered in the affirmative. Nineteen of these students claimed to have somewhat regular contact (defined as *at least* monthly contact), and 5 claimed to have less-than-monthly contact. Eight students reported that they do not have any contact with their parent lost to divorce.

The most common form of “replacement parent” (defined as one that essentially fills the role of the lost parent) was a step-parent (12 step-father replacements and 5 step-mother replacements), with 1 participant having a foster parent and 4 declaring “other” (such as the boyfriend or girlfriend of the remaining parent).

Parental Attachment Questionnaire

This 55-item attachment assessment has a maximum score of 275. Studying the collected data, scores ranged from 79 to 261, with a mean score of 218.84 (SD = 30.46). In an attempt to measure the correlation between the PAQ and its three distinct subscales, a correlation table was formulated (see Table 1). The results yielded Pearson r 's of .965, .858, and .830 ($p < 0.01$) between the

total PAQ and each sub-scale respectively, indicating significant intercorrelations among these subscales in this study.

Table 1

Correlations between Total PAQ and PAQ Subscales

		PAQ Total Score	PAQ Scale 1 Score - Affective Quality of Relationships	PAQ Scale 2 Score - Parents as Facilitators of Independence	PAQ Scale 3 Score - Parents as Source of Support
PAQ Scale 1 Score - Affective Quality of Relationships	Pearson Correlation	.965(**)	-		
	Sig. (2-tailed)	.000			
PAQ Scale 2 Score - Parents as Facilitators of Independence	Pearson Correlation	.858(**)	.779(**)	-	
	Sig. (2-tailed)	.000	.000		
PAQ Scale 3 Score - Parents as Source of Support	Pearson Correlation	.830(**)	.715(**)	.564(**)	-
	Sig. (2-tailed)	.000	.000	.000	

** Correlation is significant at the 0.01 level (2-tailed).

Center for Epidemiologic Studies Depression Scale

In examining the results of the CES-D, participant scores ranged (out of a maximum 60) from 1 to 49, with a mean of 16.34 (SD = 11.03). The reported mean of 16.34 is substantially higher than the general population average of 9.0 (Saler & Skolnick, 1992). Ninety participants (52.9%) fell into Radloff's (1991) range of *minimal depressive symptoms* (with a range of scores from 0-14). Thirty-one participants (18.2%) fell into the range of *mild to moderate depressive symptoms* (scores ranging from 15-21), and 49 participants (28.8%) scored within the range of *possibility of major depression* (scores of 22 or higher).

Attachment Correlated to Depression

The first research hypothesis stated that the quality of the attachment bond between child and primary caregiver is negatively related to the prevalence of depression; developing this further, stronger attachment bonds will indicate lower levels of depression. In calculating a Pearson correlation between total PAQ score and CES-D score yielded an $R = -.355$ ($p < 0.01$), revealing a moderately strong, and significant negative correlation between the total PAQ scores and total CES-D scores. Furthermore Pearson $R = -.004$, yielding a non-significant negative correlation when comparing the PAQ total scores to all scores ($N = 121$ or 71.2%) found to be in the two lower interpretive ranges of the CES-D (from minimal depressive symptoms to mild/moderate depressive symptoms). On the other hand, Pearson $R = -.337$ ($p < 0.01$) reveals a moderately strong and significant negative correlation when comparing the PAQ total scores to the higher spectrum of interpretive CES-D scores (mild/moderate depressive symptoms to the possibility of major depressive symptoms; $N = 80$ or 47.1%).

On the PAQ, 144 respondents (84.7%) answered with respect to their biological mother, and 1 respondent to a foster mother. Of the participants responding to the PAQ with respect to their father, 24 respondents ($N = 14.1\%$) and 1 respondent answered according to their biological and adopted fathers respectively. Studying the relationship between the *caregiver referenced in the PAQ* (mother or father) and the total PAQ score, and the relationship between the *type of caregiver* (biological, step, adopted, foster, or other) and total PAQ

score, correlations of $R = -.281$ and $-.325$ ($p < 0.01$) were found. These correlations imply that there is a stronger relationship between higher PAQ scores (stronger attachment) when the biological mother is the parent in which responses are being made.

Parent Loss

Comparisons of the descriptive statistics of participants who have not experienced parent loss to those who have experienced parent loss yield some substantially different results. Of the 36 participants (21.2%) reporting parent loss, 4 reported loss due to death and 32 reported loss due to divorce. PAQ total scores for the non-loss group ranged from 136 to 261 with a mean score of 224.25 (SD = 23.87). The range of PAQ total scores for the loss group was 79 to 253 with a mean of 198.67 (SD = 42.24).

CES-D total scores ranged from 1 to 49 with a mean score of 15.01 (SD = 10.69) for the non-loss group; the reported range for the loss group was 2 to 43 with a mean score of 21.31 (SD = 11.00). Table 2 includes all data for the non-loss group, the loss group, and the parental divorce group.

Table 2
Descriptive Statistics of Non-Loss, Loss, and Parental Divorce Groups

	N	Minimum	Maximum	Mean	Std. Deviation
Parent Loss (No)	134	2	2	2.00	.000
PAQ Total Score		136	261	224.25	23.872
CES-D Total Score		1	49	15.01	10.687
Parent Loss (Yes)	36	1	1	1.00	.000
PAQ Total Score		79	253	198.67	42.239
CES-D Total Score		2	43	21.31	11.003
Parent Divorce (Yes)	32	1	1	1.00	.000
PAQ Total Score		79	253	197.50	39.031
CES-D Total Score		2	40	21.53	10.439

Parental Death

Of the 166 participants who did not experience the death of one or both parents, the mean PAQ total score is 220.04 (SD = 27.19) versus a mean PAQ score of 169.00 (SD = 90.66) for those four participants who experienced the death of at least one parent. The number of respondents indicating parental death was too small in which to perform statistical analyses.

Total CES-D scores ranged from 1 to 49 with a mean of 16.27 (SD = 10.92) for the non-death group in relationship to a CES-D range of 1 to 43 with a mean of 19.50 (SD = 16.78) for the death group. After studying the mean score of CES-D interpretive ranges (1 for minimal depressive symptoms, 2 for mild to moderate symptoms, and 3 for possible major symptoms) for the non-death and death groups, they are found to be 1.76 and 1.75 respectively. There does not appear to be a significant difference in CES-D scores between the non-death and death groups. Again, the death group is too small to conduct further analyses.

Parental Divorce

Thirty-two participants of the 170 confided that they have experienced the loss of a parent due to divorce. Of the 138 participants who did not experience parental divorce, PAQ total scores ranged from 103 to 261 with a mean of 223.78 (SD = 25.86); this is compared to the total PAQ range of 79 to 253, with a mean of 197.50 (SD = 39.03), for the divorce group. $R = .338$ ($p < 0.01$) was found between parental divorce and PAQ total scores, indicating that the prevalence of divorce is moderately related to lower attachment scores (see Table 3).

For the non-divorce group, CES-D total scores ranged from 1 to 49, as opposed to the 2 to 40 range displayed by the divorce group. Mean scores for the non-divorce group and the divorce group were a respective 15.14 (SD = 10.85) and 21.53 (SD = 10.44). Although the range appeared to be slightly more restricted for the divorce group, the mean score appeared to be substantially higher. This is further witnessed when comparing the mean score of CES-D interpretive ranges for the non-divorce and divorce groups, which were 1.64 and 2.25 correspondingly. $R = -.271$ ($p < 0.01$) has established that the absence of parental divorce is passably associated to lower CES-D scores.

Table 3
Correlations between the Parent Divorce, PAQ, and CES-D

		PAQ Total Score	PAQ Scale 1 Score - Affective Quality of Relationships	PAQ Scale 2 Score - Parents as Facilitators of Independence	PAQ Scale 3 Score - Parents as Source of Support	CES-D Total Score	Interpretation of CES-D Score
Parent Divorce	Pearson Correlation	.338(**)	.290(**)	.282(**)	.358(**)	-.227(**)	-.271(**)
	Sig. (2-tailed)	.000	.000	.000	.000	.003	.000

** Correlation is significant at the 0.01 level (2-tailed).

Multiple Regression

The second research hypothesis stated that parent loss to death and divorce serve as mediating factors in the prevalence of reported depression. A multiple regression was conducted to determine which predictor variables—a attachment bond, parent death, parent divorce—were the strongest predictors of the criterion variable of depression. Table 4 illustrates the results of the statistics. The results show that the only significant predictor of depression is PAQ total score, which yielded $B = -.118$ ($p = 0.000$). Parental death yielded a value of $B =$

2.992 ($p = .581$), which is not significant; parental divorce yielded a value of $B = -3.324$ ($p = .125$), which is also a non-significant value.

Table 4
Multiple Regression Comparing PAQ Total, Death, and Divorce
as Predictors of Depression

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta	B	Std. Error
1	(Constant)	42.247	11.102		3.805	.000
	PAQ Total Score	-.118	.029	-.326	-4.110	.000
	Parent Death	2.992	5.410	.041	.553	.581
	Parent Divorce	-3.324	2.156	-.118	-1.542	.125

a Criterion Variable: CES-D Total Score

CHAPTER 5

DISCUSSION

The purpose of this study was to integrate attachment theory, which is deeply grounded in the ideas of John Bowlby, parental loss (as defined by death or divorce), and depression. The results suggest that this study does serve the purpose of contributing to the vast array of existing research centered on the affects of the attachment bond to quality of life, while also offering some insight into how parent loss factors as variables influencing depression. Research has shown that roughly one in ten individuals in this age range is expected to experience some form of parent loss (Umberson & Chen, 1994). However, this study has yielded a larger proportion of respondents indicating parent loss, that of two in nine.

Results and Integration

Attachment

Bowlby (1972) has contended that attachment behavior is instinctual, and is pervasive in all aspects of animal life, including that of human beings.

Attachments are formed from the beginning and are an ever-lasting factor in parent-child and subsequent relationships. It is under these contentions that this study was developed and implemented. Knowing that attachments are the most fundamental and rudimentary relationships, are at the core of human existence,

and play a part in many different aspects of functional being, they cannot be ignored.

According to the reviewed literature, it has been demonstrated that anxiety and depression are imminent responses to the threat of losing an attachment bond. A sense of security is established during the prolonged, uninterrupted exposure to an attachment figure; anger, frustration, sadness, and worry are expected to play an integral role in human experience, especially if the primary source of support—the attachment figure—is removed (Bowlby, 1972). Based on these assertions, the present study was designed to investigate the quality of attachment between an individual and his/her identified attachment figure (primary caregiver) and the implications this attachment bond has for present levels of depression.

Results of this study have led the researcher to accept the first research hypothesis, which claimed that the quality of the attachment bond between child and primary caregiver is negatively related to the prevalence of depression. Findings yielded an $R = -.355$ ($p < 0.01$), revealing a moderately strong, and significant negative correlation between the total scores on the *Parental Attachment Questionnaire* (PAQ) and *Center for Epidemiologic Studies Depression Scale* (CES-D). The findings of the *Strange Situation* by Ainsworth et al. (1978) have shown that, given the particular attachment style between child and parent, the child displays immediate distress when the mother is directed to exit the room which the two were occupying. Since Bowlby (1972) argues that attachment bonds are well established by one year of age, it was hypothesized

that attachment style and parent loss would follow a similar pattern in later life. If depressive reactions are seen between a momentary absence of the attachment figure and a young child, it was expected that a more long-term depression can be observed from someone who has experienced the permanent loss of a well-established attachment figure.

The results of this study indicate a significant negative correlation ($R = -.355, p < 0.01$) between total scores on the PAQ and CES-D. This correlation implies that, under these particular circumstances and given this particular sample, depression scores increased (indicating the strong possibility for depressive symptoms) as attachment scores decreased (indicating weaker attachment bonds between child and primary caregiver). This finding is also practically significant, as attention is drawn to the idea that children who display a weaker, more insecure attachment to their primary caregiver *may* potentially be more prone to experiencing depressive symptoms than their securely attached counterparts. Causation cannot be inferred, as many factors are constantly influencing the human capacity to effectively or ineffectively deal with stressful situations and ability to recover from adversity.

Parent Loss

Mack (2001) proposed that death and divorce are two distinctively different forms of parent loss, and cannot be grouped together. That researcher contended that death is marked primarily by grief, sadness, and despair, whereas divorce is characterized more by angry and hostile reactions. The data

in this study do not support Mack's assertions, perhaps due to the limited number of participants reporting parental death (N = 4).

The results of this study yield a significant correlation between parental divorce and depression. Aseltine (1996) sought to study the link between parental divorce and adolescent depression. The findings of his research concluded that there is, in fact, a relationship between these variables. Divorce is viewed as a source of numerous secondary problems and stresses related to depression, and that alter the child's reactivity to these stresses. In supporting Aseltine's research, data from this sample yielded strong positive correlations between the presence of divorce and total PAQ scores; indicating that the respondents who experienced parental divorce tended to score significantly lower on the PAQ (indicating lower levels of attachment to their primary caregiver). The divorce group also was found to have a strong negative correlation to CES-D total scores; this implies that respondents indicating parental divorce tended to score higher on the CES-D (indicating a higher possibility of having depressive symptoms).

As reported in the literature review, an extensive amount of research regarding the topic of parental death and depression does not exist. Although Mack (2001) hypothesized that parental death would serve as an indicator of depression, he was unable to support his claims. Meshot and Leitner (1995), however, did attempt to find a relationship between parental death and adolescent suicidal ideation. Using two assessments of bipolar disorder on a death group and non-death group (20 and 22 respondents respectively), those

researchers found that the death group scored significantly lower on one assessment and not the other; this indicates that on the first assessment there appears to be a relationship between parental loss and suicidal ideation, although this was not found on the second assessment. As the results of Meshot and Leitner's death study appeared to be indistinct, they have appeared to be so in this study as well. As only four respondents reported parental death, no statistical analyses could be performed. However, of the 166 participants who did not experience the death of one or both parents, the mean PAQ total score is 220.04 (SD = 27.19) versus a mean PAQ score of 169.00 (SD = 90.66) for those four participants that experienced the death of at least one parent. Total CES-D scores ranged from 1 to 49 with a mean of 16.27 (SD = 10.92) for the non-death group in relationship to a CES-D range of 1 to 43 with a mean of 19.50 (SD = 16.78) for the death group. After studying the mean score of CES-D interpretive ranges (1 for minimal depressive symptoms, 2 for mild to moderate symptoms, and 3 for possible major symptoms) for the non-death and death groups, they are found to be 1.76 and 1.75 respectively. There does not appear to be a significant difference in CES-D scores between the non-death and death groups. These results appear to have been inconclusive, although perhaps more favorable results may have been found with a larger subject pool of participants that have experienced the death of a parent.

Mediating Factors

The study's second research hypothesis stated that parental death and divorce would not be shown to serve as mediating factors, influencing the

prevalence of reported depression. Based on a stepwise multiple regression performed to analyze attachment bond, death, and divorce as predictive variables of depression, it is concluded that both forms of parent loss were unable to be used as predictors. Attachment bond between child and primary caregiver was designated as the only significant predictor of depression. It cannot be said, within the confines of this study, that death or divorce *alone* predicted scores on the CES-D. Despite this fact, it is interesting to note that there was a moderate negative correlation of $R = -.277$ ($p < 0.01$) between parental divorce and CES-D total score.

Serendipitous Findings

Some data collected was not used in the final interpretation of the results. Nevertheless, this data should not be ignored, and in a different study—with a larger, more diverse sample—it may prove to be beneficial. For example, in this particular study the researcher did not devote attention to the ethnic background of the respondents, as only 10 of the 170 participants declared their ethnicity as other than *European American or Caucasian*. Among this sample there was no correlation among ethnicity and PAQ total score, PAQ subscales, or CES-D total score or interpretative ranges.

In taking a developmental approach to this study, the data surrounding when the parent loss occurred could have been taken into account. Again, working under the limitation of a restricted number of parent loss respondents, this data was not included in the interpretation of results. Correlations calculated when factoring in the age of the respondent when parent loss occurred and how

many years ago the loss took place did not yield any significant results. In fact, all correlations between the age of loss and PAQ total score, PAQ subscales, and the CES-D resided close to 0.00; this was also true when comparing the number of years between loss and present day to the PAQ and CES-D.

It would be interesting if future research focused on studying the distance between when a parent was lost and the current testing time. Although in this study there were only three respondents who reported to have lost a parent within the past two years, their results on the PAQ and CES-D are intriguing. Two of the three respondents scored a 37 on the CES-D, placing them in the *possibility for major depressive symptoms* range. The mean score on the CES-D for these respondents was 28.33 (SD = 15.01) versus that of 16.13 (SD = 10.88) for all others. These three participants also scored relatively low on the PAQ, with a mean of 176.00 (SD = 30.35) versus that of 219.60 (SD = 30.00) for all others.

Study Limitations

The present study offers some important findings, which can be related to the literature. Despite this fact, several limitations to the study may have influenced the results. First and foremost, given the general population of the particular university in which this study was conducted, the nature of the sample was bound to be reflective of this student body. Among this sample (N = 170), there were a disproportionate number of females to males, females outnumbering the males by a count of 122 to 48, respectively. It was also evident that the respondent group was extremely homogeneous: 94% students of

European American or Caucasian heritage; 73% of students either 18 or 19 years of age; and the previously stated 72% of females reporting.

Another limitation found was that of sample size. A larger number of respondents offering quality data are also sought after. To generalize this study over all college students in age from 18 to 25 would be a mistake, as it needs to be taken into account that this study was conducted at only one major university.

This study was administered in large lecture-based classes at the University. Although the participating professors were helpful and generous in offering class time for this research, time constraints still played an important factor. In each administration of this study, the researcher and respondents were only allotted fifteen minutes in which to introduce the study, hand out materials, complete and return the assessments. During some instances it appeared as though the participants were under time constraints to finish, as their class period had expired and students and professors using the classrooms during the next time period seemed eager to enter the room. The pressures of time constraints may have influenced the results.

As with any self-report study, there exists the possibility of a social desirability effect, in which the participants respond to the test items in a way that is deemed "socially acceptable" by others. Although anonymity was assured in this study, students may have experienced difficulty in discussing parent loss, the attachment to their primary caregiver, or in answering the items on the depression scale honestly and openly. An attempt to account for this was made on both the PAQ and CES-D; some items were worded opposite the others,

calling for respondents to answer in a way that is different from the other items. Self-report data may also be laden with problems pertaining to memory difficulties. A more comprehensive design would include one-on-one interviews of a personal nature, although these methods are more costly to perform.

Stillion and Wass (1984) published an article asserting that a majority of research centered on childhood depression, attachment, and loss has focused on adult participants. This strategy seems to be widely used, as gathering research on adults is easier. However, this data is collected and interpreted purely on participant recollections as was the case in this study. Brennan and Shaver (1998) argue that research on childhood parental loss is often inadequate, as the number of children who have lost a parent by the age of 25 is significantly lower than it is during later life. Contrary to the research, this study yielded a significantly “higher than average” rate of parental loss—22% versus that of 10% according to Umberson and Chen (1994). This may perhaps reflect a national trend of more children being raised in single parent homes.

The CES-D depression scale was used to measure depressive symptoms that have occurred over the past six months among this sample. This may be problematic as the original form of the depression scale asks respondents to answer the survey based on only a one-week time period. This is important to note, as it is observed that all of the psychometric properties regarding this study have been formulated based on the one-week, and not the six-month time frame. The wording of the instrument was changed in order to gain a more comprehensive look at depression over a significantly larger time period. Asking

about depressive symptoms over the course of a week may be influenced by a recent string of unfavorable events, or other extraneous factors.

One last limitation to this study relates to the time period when parental loss occurred. Although information was gathered in the demographic questionnaire inquiring about the time period of the parental loss, that information was not factored into the final data analysis. A participant who experienced the loss of a parent one year prior may still be grieving (thus answering the CES-D in a particular manner) versus another participant who may have lost a parent fifteen years prior and may have “moved on” and learned to cope with the loss (thus answering the CES-D in perhaps a different manner).

Implications for Future Research

The purpose of this study was two-fold. The first research hypothesis stated that the quality of the attachment bond between child and primary caregiver is negatively related to the prevalence of depression. The second hypothesis testified that parent loss to death and divorce serve as mediating factors in the prevalence of reported depression.

This study has been successful in contributing to the literature surrounding attachment style and the prevalence of depression. Correlations were significant in establishing that the stronger the level of attachment between child and primary caregiver, the lower the reporting of depressive symptoms. However, this study failed to establish that parental death and divorce serve as mediating factors of depression. Be that as it may, this notion should not be ruled out.

Understanding the limitations of this particular study, a larger population of respondents who had in fact experienced parent loss may yield different findings.

The results reported in this study cannot be overlooked by mental health professionals. This study has contributed to the already largely established base of attachment literature. Although causation cannot be inferred from this study, it is important that counselors do not overlook the attachment bond a client has with his/her primary caregiver (and according to the research, the attachment bonds this individual has with other close persons such as the parent that is not identified as the primary caregiver). Despite the fact that this study failed to establish parental death or divorce as predictors of depression, further research on a larger sample size may yield the results which the researcher hypothesized.

It appears to be common knowledge in our society that the loss of a parent is an event marked by grief, sadness, guilt, and any combination of conflicting (and even concurring) emotions. With just this basic knowledge alone, depression—which is a common resulting emotional state—must remain at the forefront in assessing the psychological side effects of such loss.

There does not exist any one be-all-end-all assessment strategy to test for depression. The emotion of sadness can be experienced at any time, for any number of reasons. This research serves the purpose of analyzing one largely influential aspect of human relationships (attachment) and how, if under the proper conditions, attachment can contribute to the detriment of well-being.

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APPENDICES

APPENDIX A

INSTITUTIONAL REVIEW BOARD APPROVAL

University of New Hampshire

Research Conduct and Compliance Services, Office of Sponsored Research
Service Building, 51 College Road, Durham, NH 03824-3585
Fax: 603-862-3564

08-Dec-2006

Baker, Jason
Education, Morrill Hall
20 Winter Street
Dover, NH 03820

IRB #: 3844

Study: Attachment Style, Parental Divorce, and Parental Death as Predictive Variables of Depression

Approval Date: 29-Nov-2006

The Institutional Review Board for the Protection of Human Subjects in Research (IRB) has reviewed and approved the protocol for your study.

Approval is granted to conduct your study as described in your protocol for one year from the approval date above. At the end of the approval period you will be asked to submit a report with regard to the involvement of human subjects in this study. If your study is still active, you may request an extension of IRB approval.

Researchers who conduct studies involving human subjects have responsibilities as outlined in the attached document, *Responsibilities of Directors of Research Studies Involving Human Subjects*. (This document is also available at <http://www.unh.edu/osr/compliance/irb.html>.) Please read this document carefully before commencing your work involving human subjects.

If you have questions or concerns about your study or this approval, please feel free to contact me at 603-862-2003 or Julie.simpson@unh.edu. Please refer to the IRB # above in all correspondence related to this study. The IRB wishes you success with your research.

For the IRB,


Julie F. Simpson
Manager

cc: File
Falvey, Janet

APPENDIX B
DEMOGRAPHIC QUESTIONNAIRE

1. Age: _____
2. Gender: _____
3. Ethnicity (check all that apply):
 - Asian American or Pacific Islander
 - Latino or Hispanic
 - European American or Caucasian
 - African American or Black
 - Native American or American Indian
 - Other (Please indicate: _____)
4. Have you experienced the loss of a parent to either death or divorce? If so, which parent?

Was the parent loss due to death?

Was the parent loss due to divorce? If so, do you still have contact with that parent? If so, how often do you have contact with them?

How old were you when the loss occurred?

Have you had, or do you currently have a "replacement" parent for the lost parent? (For example: step-mother/step-father)

APPENDIX C

PARENTAL ATTACHMENT QUESTIONNAIRE (PAQ)

The following pages contain statements that describe parent/child relationships and the kinds of feelings and experiences frequently reported by young adults. Please respond to each item by filling in the number on a scale of 1 to 5 that best describes **your primary caregiver**, your relationship with that parent, and your experiences and feelings. Please provide a single rating to describe **either your mother or father, whichever you relate to as your primary caregiver**.

In answering this survey, I am thinking about my (please pick one, based on who you identify as your primary caregiver):

_____ Mother _____ Father

When I say that I am answering this survey with my mother **or** father in mind, that parent is my:

- _____ 1. biological mother or father
- _____ 2. stepmother or stepfather
- _____ 3. adopted mother or adopted father
- _____ 4. foster mother or foster father
- _____ 5. other (please write-in)

(go to next page)

APPENDIX C (continued)

1 Not at All (0-10%)	2 Somewhat (11-35%)	3 A Moderate Amount (36-65%)	4 Quite A Bit (66-90%)	5 Very Much (91-100%)
IN GENERAL, MY MOTHER OR FATHER:				
_____	1. is someone I can count on to listen to me when I feel upset.	_____	14. has no idea what I am feeling or thinking.	
_____	2. supports my goals and interests.	_____	15. lets me try new things out and learn on my own.	
_____	3. sees the world differently than I do.	_____	16. is too busy to help me.	
_____	4. understands my problems and concerns.	_____	17. has trust and confidence in me.	
_____	5. respects my privacy.	_____	18. tries to control my life.	
_____	6. limits my independence.	_____	19. protects me from danger and difficulty.	
_____	7. gives me advice when I ask for it.	_____	20. ignores what I have to say.	
_____	8. takes me seriously.	_____	21. is sensitive to my feelings and needs.	
_____	9. likes me to make my own decisions.	_____	22. is disappointed in me.	
_____	10. criticizes me.	_____	23. gives me advice whether or not I want it.	
_____	11. tells me what to think or how to feel.	_____	24. respect my decisions, even if they don't agree.	
_____	12. gives me attention when I want it.	_____	25. does things for me which I would rather do for myself.	
_____	13. is someone I can talk to about anything.	_____	26. is someone whose expectations I feel I have to meet.	
		_____	27. treats me like a younger child.	

(go to next column)

(go to next page)

APPENDIX C (continued)

1 Not at All (0-10%)	2 Somewhat (11-35%)	3 A Moderate Amount (36-65%)	4 Quite A Bit (66-90%)	5 Very Much (91-100%)
----------------------------	---------------------------	------------------------------------	------------------------------	-----------------------------

DURING TIME SPENT TOGETHER, MY MOTHER OR FATHER WAS SOMEONE:

- | | |
|---|--|
| _____ 28. I looked forward to seeing | _____ 35. who made me feel guilty and anxious. |
| _____ 29. with whom I argued. | _____ 36. I liked telling about what I have done recently. |
| _____ 30. with whom I felt comfortable. | _____ 37. for whom I felt feelings of love. |
| _____ 31. who made me angry. | _____ 38. I tried to ignore. |
| _____ 32. I wanted to be with all the time. | _____ 39. to whom I told my most personal thoughts and feelings. |
| _____ 33. towards whom I felt cool and distant. | _____ 40. I liked being with. |
| _____ 34. who got on my nerves.
(go to next column) | _____ 41. I didn't want to tell what has been going on in my life. |

FOLLOWING TIME SPENT TOGETHER, I LEAVE MY MOTHER OR FATHER:

- | | |
|--|--|
| _____ 42. with warm and positive feelings. | _____ 43. feeling let down and disappointed. |
| (go to next column) | |

WHEN I HAVE A SERIOUS PROBLEM OR AN IMPORTANT DECISION TO MAKE:

- | | |
|---|--|
| _____ 44. I look to my mom or dad for help. | _____ 48. I talk it over with a friend. |
| _____ 45. I know that my mom or dad will know what I should do | _____ 49. I go to a therapist, school counselor, clergy (priest, rabbi or minister). |
| _____ 46. I ask my mom or dad for help if my friends can't help | _____ 50. I work it out on my own, without help from anyone. |
| _____ 47. I think about what my mom or dad might say.
(go to next column) | (go to next page) |

WHEN I GO TO MY MOTHER/FATHER FOR HELP:

_____ 51. I feel more sure of my ability to handle
problems of my own.

_____ 52. I continue to feel unsure of myself.

_____ 53. I feel that I would have gotten more
understanding from a friend.
(go to next column)

_____ 54. I feel sure that things will work
out as long as I follow my
mother's/father's advice.

_____ 55. I am disappointed with my
mother's/father's response.

APPENDIX D

CENTER FOR EPIDEMIOLOGIC STUDIES DEPRESSION SCALE (CES-D)

INSTRUCTIONS: Below is a list of the ways you might have felt or behaved during **the past six months**. Please indicate how often you have felt this way during **the past six months** by placing a number from the rating scale below in the space to the left of each item.

Rating Scale

- 0 = Rarely or None of the Time**
- 1 = Some or a Little of the Time**
- 2 = Occasionally or a Moderate Amount of Time**
- 3 = Most or All of the Time**

During the past six months:

- _____ 1. I was bothered by things that usually don't bother me.
- _____ 2. I did not feel like eating; my appetite was poor.
- _____ 3. I felt that I could not shake off the blues even with help from my family or friends.
- _____ 4. I felt that I was just as good as other people.
- _____ 5. I had trouble keeping my mind on what I was doing.
- _____ 6. I felt depressed.
- _____ 7. I felt that everything I did was an effort.
- _____ 8. I felt hopeful about the future.
- _____ 9. I thought my life had been a failure.
- _____ 10. I felt fearful.
- _____ 11. My sleep was restless.
- _____ 12. I was happy.
- _____ 13. I talked less than usual.
- _____ 14. I felt lonely.
- _____ 15. People were unfriendly.
- _____ 16. I enjoyed life.
- _____ 17. I had crying spells.
- _____ 18. I felt sad.
- _____ 19. I felt that people dislike me.
- _____ 20. I could not get "going."

APPENDIX E

INFORMED CONSENT

The study in which you are about to participate involves self-report research that serves the purpose of attempting to find a relationship between parent-child attachment styles and emotional well-being. Questions will be asked that pertain to parental death and divorce, the attachment between you and your primary caregiver, and also about your emotional well-being.

You will be asked to fill out three (3) questionnaires. The first is a demographic questionnaire; inquiring about age, gender, ethnicity, and family makeup. The second questionnaire asks you to answer questions in regards to your attachment to your primary caregiver. The third questionnaire asks you to respond to questions about emotional well-being. Please be aware that these questions are personal in nature, and may remind you of significant losses in your life.

Participation in this study is completely optional and your name or any other identifying information will not be associated with your results; your confidentiality will be respected.

If you **do not feel comfortable participating** in this study, please check the appropriate box below and return this form to the researcher; there is no penalty for choosing not to participate. If you are **willing to participate**, please indicate this by checking the appropriate box and signing your name below. Your participation is requested for the duration of this study, which will not last more than 45 minutes.

If you decide to terminate your participation in this study at any time, you may do so by writing so on the questionnaire at the point in which you wish to stop. Your data will not be used in the final results and there is no penalty for withdrawing at any time.

APPENDIX E (continued)

If you have any questions regarding this research, please contact Jason Baker at (617) 519-9629, or jason.r.baker@gmail.com. To obtain more information on your rights as a research participant, please contact the University Office of Sponsored Research at 862-2003.

- I **do not** wish to participate in this study.
- I **do** give my permission to participate in this study.

Name Date

APPENDIX F
DEBRIEFING FORM

Dear Participant:

The study you just performed was part of my master's thesis for the Graduate Program in Counseling at the University of New Hampshire. I would like to extend my gratitude for your participation.

The specific purpose of this study was to research which variable is a better predictor of depression: attachment style (between you and your primary caregiver), parental divorce, or parental death.

Three attachment styles exist: avoidant, anxious-ambivalent, and secure attachment. Trends were also measured to try and find a potential link between parental divorce and depression, and parental death and depression.

The data gathered from participants that did not experience parent loss will be used as a comparison to the data from those that have suffered parent loss. Any comparisons or differences will be noted.

If you have any questions regarding the study, would like to know more information, or would like to be made aware of the final results when they are analyzed, please feel free to e-mail me: jason.r.baker@gmail.com.

If you feel the need to seek professional help as a result of this study, please consult the **University Counseling Center at (603) 862-2090** or **University Health Services at (603) 862-1530**. If you have any questions about your rights as a research subject you may contact **Julie Simpson in the University Office of Sponsored Research at (603) 862-2003** or julie.simpson@unh.edu to discuss them.

Thank you again.

Sincerely,

Jason