

THE RELATIONSHIP BETWEEN PARENTAL ATTACHMENT STYLES AND
MATERNAL PERCEPTIONS OF PREADOLESCENT CHILDREN'S
INDEPENDENCE FUNCTIONING
A QUANTITATIVE APPROACH

A DISSERTATION
SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
DEGREE OF DOCTOR OF PHILOSOPHY
IN THE GRADUATE SCHOOL OF THE
TEXAS WOMAN'S UNIVERSITY

COLLEGE OF PROFESSIONAL EDUCATION

BY
STEPHANIE G. SCROGGINS, B.A., M.A.

DENTON, TEXAS

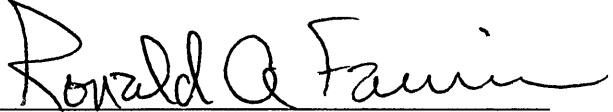
DECEMBER 2008

TEXAS WOMAN'S UNIVERSITY
DENTON, TEXAS

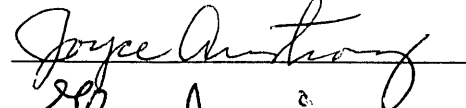


September 30, 2008

To the Dean of the Graduate School:

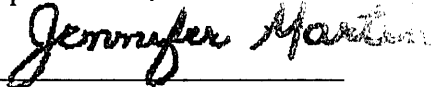
I am submitting herewith a dissertation written by Stephanie G. Scroggins entitled "The Relationship Between Parental Attachment Styles and Maternal Perceptions of Preadolescent Children's Independence Functioning: A Quantitative Approach." I have examined this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy with a major in Child Development.


Dr. Ronald Fannin, Major Professor

We have read this dissertation and recommend its acceptance:




Department Chair

Accepted:


Dean of the Graduate School

Copyright © Stephanie G. Scroggins, 2009
All rights reserved.

DEDICATION

This study is dedicated to my husband, Dr. Randy Scroggins, my daughter Karea Scroggins, and my son LaRandall Scroggins. My family has provided me with endless support in the completion of this task. This task could not have been possible without each of you.

ACKNOWLEDGMENTS

An endeavor such as this could have never been accomplished alone. I had a number one fan that encouraged me and believed in me every mile of the way. He prayed for me and with me, he stayed up with me until wee hours in the mornings, and he listened at every grumble. Even at the completion of this project his support and encouragement are still going strong. Thank you Dr. Randy Scroggins, M. D. for your love and being there all the way.

I would like to thank my children, Karea and LaRandall for their enthusiasm and sense of humor that also encouraged me to continue on. I love the both of you. Thanks to my mom Ethel Hayes for telling me as a young girl transitioning from high school to college and from college to graduate school that I was turning into a professional student. That thought resonated in my mind through this process and inspired me to continue. Lastly, I would like to say thanks to my niece Melanie Singleton for her support from afar.

To all of my extended family, the Davis, the Bolden's, the Manous and friends, thank you for your prayers, your kindness, and encouragement.

To the friendships that I developed with peers at Texas Woman's University will be cherished for a lifetime and I am very grateful.

To my dissertation committee members, Drs. Fannin, Armstrong, and Jennings, and other committee members that I have had during this process, I thank you for your expertise, encouragement, and commitment to all students.

ABSTRACT

STEPHANIE G. SCROGGINS

THE RELATIONSHIP BETWEEN PARENTAL ATTACHMENT STYLES AND MATERNAL PERCEPTIONS OF PREADOLESCENT CHILDREN'S INDEPENDENCE FUNCTIONING A QUANTITATIVE APPROACH

DECEMBER 2008

This quantitative study examined the maternal perceptions of children's independence functioning and mothers' internal working models of attachment. The study used online questionnaire methodological techniques to examine variables and answer hypotheses. The theoretical frameworks for this study were based on the attachment theory (Bowlby, 1982) and family systems theory (Bowen, 1988). The population for this study comprised of 161 mothers with children ages 7 to 11 years.

The study examined four null hypotheses: a) There will be no statistically significant difference in mother's perception of her child's independent functioning based on the mothers' attachment style; b) There will be no statistically significant difference in mothers' perception of their children's independent functioning based on the mothers' educational level and socioeconomic status; c) There will be no statistically significant difference in mothers' perception of their children's independent functioning based on the mothers' age, marital status, and working status; and d) There will be no statistically

significant difference in mothers' attachment style based on the mothers' age, marital status, and working status.

Data were collected using the Maternal Perception of Child's Independence Measure (MPCI) and the Parent Attachment Questionnaire (PAQ) instruments, along with a demographics questionnaire. Results revealed that a) parental attachment (PAQ) predicted maternal perceptions of the child's independence (MPCI); b) education level of the mother predicted independence level in some incidences, and income level did not; c) maternal age predicted independence level while marital status and working status did not; and finally, d) neither maternal age, nor marital status, nor working status predicted parental attachment. This study concludes that both parental attachment and other demographic characteristics such as maternal education level and maternal age affect children's independence behaviors.

Future research suggests investigations of attachment relationships to non-traditional parents as primary caregivers such as foster parents, stepparents, and adoptive parents. Additionally, a father as the primary caregiver is suggested as inclusion of non-traditional parents.

TABLE OF CONTENTS

	Page
COPYRIGHT.....	iii
DEDICATION.....	iv
ACKNOWLEDGMENTS	v
ABSTRACT.....	vii
LIST OF TABLES	xii
Chapter	
I. INTRODUCTION.....	1
Statement of the Problem.....	2
Statement of Purpose.....	6
Hypotheses.....	6
Definitions.....	8
Assumptions.....	9
Delimitations.....	9
Summary.....	10
II. REVIEW OF LITERATURE.....	11
Theoretical Framework.....	11
Attachment Theory.....	11
Family Systems Theory	14
Historical Context of Attachment.....	15
Approaches to Attachment.....	16
Adult Models of Attachment.....	18
Attachment Types.....	19
Attachment Styles and Parenting.....	21
Insecure Mother-Child Attachment.....	22
Independence of the Child	23

Independence and Attachment	24
Summary	27
III. METHODOLOGY	28
Population and Sample	29
Sampling Procedure	30
Protection of Human Rights.....	30
Instrumentation	32
Parent Attachment Questionnaire	32
Maternal Perception of Child's Independence Measure.....	33
Demographic Information Questionnaire	34
Procedure	34
Analysis.....	36
Summary	41
IV. RESULTS	44
Demographics	45
Relationships Among Independent Variables.....	48
Primary Analyses.....	59
Independence Scores.....	60
Independence Category.....	64
Attachment Score.....	67
Attachment Category	69
V. DISCUSSION, CONCLUSIONS, LIMITATIONS, IMPLICATIONS, AND FUTURE RESEARCH	72
Discussion of Findings.....	73
Hypothesis One.....	75
Hypothesis Two	76
Hypothesis Three	78
Hypothesis Four.....	79
Demographic Relationships.....	79
Conclusions.....	80
Limitations.....	81
Implications.....	81
Future Research	82
Summary	83
REFERENCES	85

APPENDICES

A. PARENT ATTACHMENT QUESTIONNAIRE (PAQ)	95
B. MATERNAL PERCEPTION OF CHILD’S INDEPENDENCE MEASURE	101
C. DEMOGRAPHIC FORM	105
D. IN PERSON RECRUITMENT LETTER	107
E. EMAIL SCRIPT	110
F. CONSENT TO PARTICIPATE	113
G. PERMISSION LETTERS	116

LIST OF TABLES

Table	Page
1. Working Model of Self (Dependence).....	3
2. Adult Attachment Style Category Questionnaire ...	4
3. Independent Variable and Dependent Variable for Each Hypothesis	7
4. Summary of Variables and Statistical Tests Used for Each Hypothesis	42
5. Frequencies and Percentages for Categorical Demographic Variables (N = 161)	46
6. Average Age of Respondents ...	48
7. Means and Standard Deviations for Continuous Child Demographic Variable	49
8. Frequencies and Percentages for Work Status, Income Level, Education Level, and Ethnicity by Marital Status	51
9. Frequencies and Percentages for Income Level, Education Level, and Ethnicity by Work Status	53
10. Frequencies and Percentages for Income Level and Education Level by Ethnicity	55
11. Frequencies and Percentages for Income Level by Education Level	56
12. Means and Standard Deviations for Age by Education and Ethnicity ...	57
13. Means and Standard Deviations for Age by Work Status and by Marital Status	58
14. Pearson's Product Moment Correlations between Age and Income Level (N = 160)	58

15.	Means and Standard Deviations for Independence Score and Attachment Score	60
16.	Summary of Simple Linear Regression Analysis for Variables Predicting Independence Score	62
17.	Multiple Regression Analysis for Levels of Education as Predictors of Independence Score.....	63
18.	Summary of Multiple Regression Analysis for Variables Predicting Independence Score	64
19.	Summary of Simple Logistic Regression Analysis for Variables Predicting Independence Category.....	65
20.	Multiple Logistic Regression Analysis for Levels of Education as Predictors of Independence Category.....	66
21.	Summary of Multiple Logistic Regression Analysis for Variables Predicting Independence Category	67
22.	Summary of Simple Regression Analysis for Variables Predicting Attachment Score	68
23.	Summary of Multiple Regression Analysis for Variables Predicting Attachment Style	69
24.	Summary of Simple Logistic Regression Analysis for Variables Predicting Attachment Style.....	70
25.	Summary of Multiple Logistic Regression Analysis for Variables Predicting Attachment Style.....	70
26.	Summary of Variables, Test Statistics, and Decisions for Each Hypothesis	71

CHAPTER I

INTRODUCTION

Attachment is a fundamental relationship that begins at birth between a infant and caregiver (Bowlby, 1982). Attachment is the foundation of the beginning of social relationships (Becker-Weidman, 2004). Healthy social relationships lead the infant to trust the caregiver. Unhealthy social relationships can prevent attachment from developing. An insecure attachment may develop. Infants that develop an insecure attachment have been known to have more problems as children and adults (Graham & Easterbrooks, 2000).

Infant-caregiver attachment is the earliest relationships that is established during the child's first two years of life and extends through the first 6 years of life (Main & Cassidy, 1988). Bowlby (1969) first applied the attachment concept to the infant-caregiver bond and described attachment as a set of innate signals that call the adult to the infants' side. From this experience the child's needs is met and a secure attachment is formed. The child's expectations from the caregiver are fostered with expectations of receiving support.

Early attachment is important to humans throughout the lifespan. Researchers have focused on attachment issues for decades. Bowlby (1988) stated a secure attachment between the mother and child sets the foundation for reconnection in case of separation. Neal and Frick-Horbury (2001) looked at secure attachment as a means of developing

attachment working model patterns in childhood that continue to work when the child is older. The emotional bond that develops between the caregiver and child is seen through aspects of the child's social behavior (Marvin, Greenberg, & Mossler, 1976). According to Bowlby (1988), infants form an internal working model of their social worlds. The basis of this model is children's expectations of their caregivers. The confidence of this model helps children to develop strategies for coping with their distress. They carry this model throughout the lifespan. This internal working model affects decision-making, school experiences, and relationships (Crowell & Feldman, 1988).

Statement of the Problem

Research regarding parent-child relationships has identified attachment securities and positive developmental outcomes as a possible influence on preadolescent children's functioning (Schoppe-Sullivan, Diener, Mangelsdorf, Brown, McHale, & Frosch, 2006). Bohlin Hagekull, & Rydell, (2000) found that secure attachment relationships has influenced positive developmental outcomes such as social competence, emotional understanding, and aggression in preadolescent children. Other studies have explored attachment securities influence on developmental outcomes more specifically to early years of age (van Dam & van Ijzendoorn, 2001) and adolescents (Cristina & de Minzi, 2006).

The relationship between parents and children is the primary focus of the attachment theory (Bowlby, 1982). Attachment describes parenting behavior and the

response that is given by the child. Attachment has been viewed as being relevant to development throughout the lifespan (Feldman, 2005).

Adult internal mental representations are described as adult attachment styles. The function of internal mental representation is to model an individual's own behavior toward the attachment figures and to interpret the figures behavior (Bowlby, 1969). Adult attachment styles have been derived by individual adult associations of their relationships with their parents (Hazan & Shaver, 1987). Adult attachment styles are categorized as secure/autonomous, insecure/dismissing, and insecure/preoccupied (Bartholomew, 1990) (see Table 1).

Table 1

Working Model of Self (Dependence)

	Positive (Low Anxiety)	Negative (High Anxiety)
Positive (Low Anxiety)	Secure/parallels secure attachment in children- Comfortable with intimacy and autonomy.	Preoccupied/parallels ambivalent attachment in children- Preoccupied with relationships.
Negative (High Anxiety)	Dismissing/parallels insecure avoidant attachment in children- Dismissing of intimacy; strongly independent	Fearful/parallels avoidant attachment in children- Fearful of intimacy; socially avoidant.

Note: Model of Attachment (Bartholemew, 1990)

Hazan and Shaver (1987) conceptualized the categories through the development of a questionnaire. The questionnaire consists of three paragraphs with characteristics of feelings, way of thinking, and behavior in relationships. Individuals category is determined by the paragraph best describing the way you think, feel, and behave in relationships (see Table 2).

Table 2

Adult Attachment Style Category Questionnaire

Paragraph A = Avoidant	I am somewhat uncomfortable being close to others: I find it difficult to trust them completely, difficult to allow myself to depend on them. I am nervous when anyone gets too close, and often, others want me to be more intimate than I feel comfortable being.
Paragraph B = Secure	I find it relatively easy to get close to others and am comfortable depending on them and having them depend on me. I don't worry about being abandoned or about someone getting too close to me.
Paragraph C = Anxious	I find that others are reluctant to get as close as I would like. I often worry that my partner doesn't really love me or won't stay with me. I want to get very close to my partner

Note: Hazan & Shaver (1987)

Adult attachment styles influence parenting relationships with children. Research attributes the relationship facet to intergenerational transmission (van Ijzendoorn, 1995). For instance, a mother's relationship with her own mother patterns her relationship with her child. Children's independence functioning (Klaus, Kennell, & Klaus, 1995) is learned through parenting relationships. Independence functioning is behaviors that are commonly thought to be characteristics of the decision-making of young children (Klaus et al., 1995).

Independence is influenced through parenting imitation, by way of reinforcement and modeling. Such processes are known collectively as social learning or social competence (Bandura, 1977). Parents and children's lives are interconnected through the interactions and personal characteristics that they bring to the family. Individual family member characteristics demonstrated within the family contributes to children's ability to make their own decisions (Klaus et al., 1995).

Research studies have supported parent-child relationships and the effects in later life. Relationships between parental attachment and gender-role identity among college students looked at gender-role identity originating by gender-role associations (Haigler, Day, & Marshall, 1995) The impact of parental rearing behaviors has been linked to later adolescents internalizing and externalizing rejection, and over protection (Muris, Meesters, & Van den Berg, 2003). Older adolescents' identity development and positive self-image are measured by levels of attachment to parents (Koon, 1997). The study found that attachment to parents has a positive impact on self-image (Koon, 1997).

Measuring parent-child relationships serves as a primary contributor to adolescent development and well being (Greenberg, Siegel, & Leitch, 1983).

Statement of Purpose

The primary purpose of this study was to examine maternal attachment styles (secure/insecure) and their relationships to the mother's perceived independence of the child. Using quantitative methodology, maternal perceptions were being assessed by behaviors that are commonly thought to be characteristics of young children issues of independent functioning (Shulman, Kedem, Kaplan, Sever, & Braja, 1998). The Maternal Perception of Child's Independence Measure (MPCI) was used to measure this variable. The study also examined attachment style as measured by the Parental Attachment Questionnaire (PAQ; Kenny, 1987). These instruments address the parental relationship between mothers and their children.

Hypotheses

The present study examined the following Hypotheses (see Table 3):

Hypothesis 1. There will be no statistically significant difference in mother's perception of her child's independent functioning (MPCI) based on the mothers' attachment style (PAQ).

Hypothesis 2. There will be no statistically significant difference in mothers' perception of their children's independent functioning (MPCI) based on the mothers' educational level and socioeconomic status.

Hypothesis 3. There will be no statistically significant difference in mothers' perception of their children's independent functioning (MPCI) based on the mothers' age, marital status, and working status.

Hypothesis 4. There will be no statistically significant difference in mothers' attachment style (PAQ) based on the mothers' age, marital status, and working status.

Table 3

Independent Variable and Dependent Variable for Each Hypothesis

	Independent Variable	Dependent Variable
Hypothesis 1	Parental Attachment Questionnaire	Maternal Perception of Child's Independence Measure
Hypothesis 2	Educational level Income level	Maternal Perception of Child's Independence Measure
Hypothesis 3	Mother age Marital status Working status	Maternal Perception of Child's Independence Measure
Hypothesis 4	Mother age Marital status Working status	Parental Attachment Questionnaire

Definitions

The following terms are applicable to this study and are addressed throughout the review of literature.

Attachment – Attachment refers to an emotional bond that develops between the infant and caregiver (Bowlby, 1982).

Caregiver - Caregiver refers to any woman who has long-term primary care responsibilities for a child.

Preadolescent Children -Preadolescent children refer to children between the ages 7 to 11.

Strange Situation – Strange situation relates to a method of separations and reunions with a child and mother (Ainsworth, Blehar, Waters, & Walls, 1978).

Secure attachment – Secure attachment refers to feelings that care given by a mother is reliable and predictable (Ainsworth et al., 1978).

Insecure attachment - For the present research avoidant attachment will comprise one subgroup of the insecurely attached group of mothers (Ainsworth et al., 1978).

Internal working model of attachment – Internal working model of attachment refers to a psychological model of one's relationship to the world based on social interactions in childhood (Bowlby, 1969).

Independent Functioning – Independent functioning refers to the ability to explore freely and makes confident decisions with parents support (Klaus et al., 1995).

Maternal Perceptions – Maternal perceptions relates to perceptions of the child's

behavior reflecting issues of independent functioning (Shulman, Kedem, Kaplan, Sever, & Braja, 1998).

Secure/autonomous attachment - Secure/autonomous attachment refers to adults' that value close relationships and regard them as influential (Berger, 2001).

Insecure/dismissing attachment - Insecure/dismissing attachment refers to adults that tend to devalue the importance and influence of their attachment relationships (Berger, 2001).

Insecure/preoccupied attachment – Insecure/preoccupied attachment refers to adults that are very involved with their childhood experiences (Berger, 2001).

Socioeconomic status - Socioeconomic status refers to social class that is based primarily on income, education, place of residence, and occupation (Berger, 2001).

Kinship - Kinship refers to a genealogical family relationship.

Assumptions

It is assumed that all parent participants are biological, custodial, or kinship parents. It is an assumption that the parent participants would respond truthfully on the Likert scale questionnaires. It is assumed that one's maternal perceptions influence judgment concerning a child's independence functioning.

Delimitations

This study is limited to the population of mothers with Internet access. This study confines itself to women participants.

Summary

Research regarding parent-child relationships with preadolescent children's developmental outcomes of independence identified a need for the research study (van Dam & van Ijzendoorn, 2001). Attachment was a fundamental relationship that begins at birth between the caregiver and child (Bowlby, 1982). The caregiver was assumed to be a biological, custodial, or kinship parent. Caregiver-child attachment relationships were fostered through support given to the child by the caregiver.

The purpose of the study was to examine the maternal perceptions of children's independence functioning and mothers' internal working models of attachment. This chapter introduced information relative to the study. A statement of the problem was presented along with four hypotheses that guided the study. Through quantitative methodology the study examined the relationships between attachment and independence. Outlined in this chapter was a list of terms that's being used throughout the research study. Delimitations identified included a population of mothers with Internet access and participants confined to women only.

CHAPTER II

REVIEW OF LITERATURE

Chapter II presents past and present studies that were related to the present research topic. It provides a foundation for the present study based on the professional literature. The review of literature establishes a need for conducting the proposed research.

Theoretical Framework

The theoretical frameworks for this study were based on the attachment theory and the family systems theory. The attachment theory was used to address the impact of parental attachment on children's independence. Family systems theory was used to address the behavioral transmissions of children's attachment.

Attachment Theory

The attachment theory defines early parent-child relationships. The development of attachment theory was coined to the works of Bowlby (1982). According to Bowlby (1969), the relationship begins as a set of innate signals in the first years of life. The signals draw the caregiver to the child's side. Over time an affectionate bond were developed. At this point the affectionate bond was deemed as secure through the experience of the child.

Attachment was the child's perception of the caregivers' nurturance behavior. This theory was based on the relationship with the primary caregiver, usually the

mother (Bowlby, 1969). This construct was based on empirical studies (Ainsworth & Bell 1970) differentiating secure attachment and insecure attachment types.

Development of attachment patterns was a result of parental behaviors in relations to the child. Attachment patterns influence later development (Bowlby, 1980).

Attachment theory focuses on the relationship between the child and the primary caregiver (Bowlby, 1982). The mother-child relationship during the first years of life determines the characteristics of future well being. Bowlby (1982) describes the adults' memories and expectations related to this first attachment relationship as the adults' "working models," or internal mental representations of attachment. Such expectations and interpretations related to relationships drive how he or she behaved inside and outside the family. According to Bowlby (1982), attachment relationships provide the foundation for parent-child trusting relationships. Parent-child attachment begins as the caregivers respond to children's signals. Children rely on their primary caregivers as a secure base. A secure type of attachment provides children a secure base from which to explore the rest of the world. Children seek contact with the caregivers when there were feelings of threat.

An insecure attachment may result when the child's needs were not being met over time depending on the nature of quality of the relationship. Ainsworth et al. (1978) developed the Strange Situation Measure to study factors that influence attachment and how it may impact later development. Three attachment styles in infants were identified as secure, anxious-ambivalent, and avoidant.

Another pattern of attachment based on qualities of response from the caregiver is the avoidant type of attachment (Ainsworth et al., 1978). Avoidant attachment behavior occurs when a child avoid contact with the caregiver causing children to seem unresponsive to their caregiver when present. The ambivalent type of attachment (Ainsworth et al., 1978) causes children to seek closeness to the caregiver and often reluctant to explore. A disorganized-disoriented type of attachment (Main & Solomon, 1986) reflects confused behavior by children being separated from their caregiver. Attachment relationships depend solely on the caregiver's behavior and their responsiveness to children (Ainsworth et al., 1978).

Insecure attachment styles were linked to studies of depression in 7 to 9 year old children (Graham & Easterbrooks, 2000). The children studied underwent Ainsworth's et al (1978) Strange Situation procedure and those children categorized as insecurely attached were found to display higher levels of depression. Laible and Thompson (1998) studied attachment and emotional understanding in preschool children. They found that a secure attachment might increase children's understanding of emotions.

The primary caregivers' parental attachment influences the children's development of secure attachment. In the early years of development mothers were usually the primary caregivers with which babies form attachments (Haft & Slade, 1989). There were many studies on attachment that indicate that infants form attachments to both parents, but clearly reflect infants' preference for mothers when the infants was under stress (Lamb & Lewis, 2004).

Family Systems Theory

The family systems theory addresses the behavioral transmission of children's attachment and how changes or challenges can help them adapt to their environment (Cox & Paley, 2003). The behaviors are transmitted through genetics, modeling, and close family relationships (Kerr & Bowen, 1988). Murray Bowen's family systems theory and John Bowlby's (1980) attachment theory explain the entwined closeness of relationships in families.

Bowen (1988) saw the family as an emotional unit, meaning that any change in the emotional functioning of one family member is predictably and automatically compensated for implied changes in the emotional functioning of other family members. Each member in a family affects the other in some way or another. According to Bowen, anxiety controls emotional closeness within the family. Togetherness reduces feelings of anxiety and abandonment. The basic assumption of family systems theory says that parents influence children and children influence parents (Cox & Paley, 2003).

The family systems theory contains family subsystems (von Bertalanffy, 1968), such as poverty status, marital relationships, occupations, and education with mutual influence on parent-child relationships (Cox & Paley, 2003). Behaviors in one component can disturb another component. For example marital relationships can have a negative effect on parent-child relationships. Parenting behaviors affect developmental outcomes (Bradley & Corwyn, 2002). Parents with less desirable home environments show less support to their children than parents with more favorable home

environments (Bradley & Corwyn, 2002). Parents with more favorable home environments were more responsive and grant more autonomy to their children (Bradley & Corwyn, 2002; Cox & Paley, 2003). Research suggests that many children show some level of autonomy no matter what adversities they face (Masten, 2001).

Historical Context of Attachment

Grounded within an ethological perspective, attachment theory is based upon human beings making strong affectional bonds too particular others through relationship experiences (Bowlby, 1969). Ethology emphasizes the adaptive value of behavior (Hinde, 1989). In recent years ethology had been seen in more research on children due to the aspect of children's behavior resembling those of primates (Hinde, 1989). The origins of ethology can be found in research with animal behaviors in their natural environment (Lorenz, 1965).

Bowlby (1969) applied the ethology idea to the infant-caregiver bond. Bowlby studied the ideas of Lorenz (1965) imprinting model. The works of Lorenz inspired Bowlby's attachment theory. The attachment theory had shown that children become attached in the first years of life. What it does not tell us is how attachment behaviors differ from child to child. Ainsworth et al (1978) developed the Strange Situation measure to differentiate the quality of attachment from one child to another. The measure had been supported in studies measuring the security of children's attachment (Blanchard & Main, 1979).

Approaches to Attachment

The attachment relationship was the focus between the children and their primary caregivers, typically the mothers. The attachment relationships forms as the caregiver satisfy the children's needs related to trust and security. Erik Erikson (1968), a prominent theorist of human development, studied extensively personality development. Erikson saw a people's development of self as a reflection of childrearing experiences. Erikson's theory of personality explains patterns of behavior through stages of life. Each stage focuses on particular developmental tasks correlated to the child's age.

According to Erikson (1968), during infants' first year of life, they discover whether needs was being met by a trusting and reliable caregiver. This period is referred to as trust versus mistrust. A sense of basic trust helps children grow psychologically (Erikson, 1968). As the child matures toward middle childhood they develop a sense of how to work with others as well as experience decision-making challenges (Erikson, 1968).

Researchers had studied attachment for decades. The biology of attachment was seen through the works of Konrad Lorenz (1965) related to the phenomenon of imprinting. Lorenz explored the links between evolution and the behavior of animals in their natural environment. Imprinting takes place during critical periods when the animal was ready to learn new behavior. Imprinting was an attachment behavior taken on by the animals' increased closeness to their mother. John Bowlby (1969) adopted the

imprinting study into his attachment theory with humans. According to Bowlby's attachment theory a reliable caregiver provide the base to developing early attachment relationships. Reliable caregivers aid the development of healthy functioning in children through the life cycle.

Konrad Lorenz's (1965) concept of imprinting came to fruition through observations of newborn goslings. Lorenz concluded that the newborn's behavior patterns that promoted survival reflect inborn genetic patterns. The goslings showed a readiness to learn from other species present at birth if their mother were not present. Lorenz references imprinting to the concept of critical periods of development. This was a specific developmental period when the individual's influence was stimulated more.

John Bowlby (1969) proposed that children must develop an early attachment to their caregiver in order to gain healthy development. Bowlby conducted studies after World War II and observed children deprived of mothering. These children had no one to attach too. Bowlby studied children in orphanages after the war. He observed emotions of depression, distress, and detachment. Because of this experience Bowlby extended his work as an advocate of the importance of early relationships.

Mary Ainsworth's (1978) study of attachment looked at mother-child behaviors in a natural environment. Ainsworth methodology to study attachment behavior was known as the Strange Situation. This experimental protocol involves children being observed as they separate from and reunites with their mothers. The infants' feelings of

security were being observed. Based upon Ainsworth's observations, three patterns were discovered; securely attached, avoidantly attached and ambivalently attached. A secure type of attachment provides the child a secure base from which to explore the rest of the world. The child seeks contact with the caregiver when there were feelings of threat. The avoidant type of attachment was an insecure attachment causing the child to seem unresponsive to the caregiver when present. The ambivalent type of attachment causes the child to seek closeness to the caregiver and often fails in doing so.

Ainsworth et al (1978) offered to the research on attachment a technique for measuring the quality of attachment. Ainsworth designed the Strange Situation experimental protocol through researched responses of mother-child interactions. The mother returning to the room after the child was left with a stranger was the measuring factor. After observing these "reunion" episodes Ainsworth identified secure and insecure attachment patterns. Based on this research this experimental technique had been consistently used for assessing attachment security.

Adult Models of Attachment

Main and Solomon's (1986) Adult Attachment Interview brought another perspective to the study of attachment relationships. The two researchers' interests involved understanding parents' patterns of relating to their children. The interview consists of 60 to 90 minutes of questioning about feelings about the adult's childhood relationships. The researchers developed four types of parent attachment styles:

autonomous-secure parents, dismissing parents, preoccupied parents, and disorganized parents.

The Adult Attachment Interview asks adults to recall childhood attachment experiences (Main & Solomon, 1986). On the basis of the responses the researchers found the attachment styles as disorganized type of insecure attachment (van Ijzendoorn, 1995). Main and Solomon found that parents who openly engage with their children were most responsive to their children's signals.

The Adult Attachment Interview measured adult attachment classifications related to parent emotions and parent behavior in a study by (Adam, Gunnar, & Akiko, 2004). The study tested maternal emotions. Mothers were classified as dismissing and preoccupied, but this association was not mediated by attachment related differences in maternal emotion. Maternal emotions did moderate the association between adult attachment and parenting behavior.

Attachment Types

Attachment relationships were important throughout the lifespan (Ainsworth, 1989). Research had found mother's to be the most sought out attachment figure (Main & Weston, 1981). Ainsworth's Strange Situation Technique assesses the child's relationship with the attachment figure. Attachment styles identified through the assessment are secure, anxious-ambivalent, and avoidant. The findings of this technique led researchers to develop the Adult Attachment Interview (AAI, George, Kaplan, & Main, 1985). The coding system of the AAI identifies attachment similarities that

parallel to the attachment styles identified by Ainsworth (Main & Goldwyn, 1985; 1991). The AAI identified secure and unsecured patterns of adult attachment with the classifications of autonomous, preoccupied, and dismissing. The classifications represent what Bowlby (1969) called “internal working models” which were rules for organizing attachment. The rules organize how the parents respond to their children’s signals and needs.

The AAI had found validity in support of the autonomous mother more often having children who was securely attached (Lamb, Thompson, Gardner, & Charnov, 1985). Children of insecure mothers seem less able to control their emotions. It also found that mothers were more sensitive to the needs of girls and the opposite was true for boys. Schoppe-Sullivan et al. (2006) study on attachment and sensitivity suggested that child gender was relevant for parent-child attachment relationships. Eighty-seven parents participated in the Strange Situation with their 1-year olds. Results indicated that mothers were more sensitive to daughters than to sons. Feldman (2003) had suggested that gender was important for parent-child relationships and should be considered when investigating attachment relationships. Armsden, McCauley, Greenberg, Burke, & Mitchell’s (1990) study of parent and peer attachment with adolescent male and female students predicted no differences in parental attachment between males and females.

The Adult Attachment Interview was used widely to assess adult attachment (AAI; George, Kaplan, & Main, 1985). Adult attachment was constantly associated

with secure attachment in infants (Main & Goldwyn, 1985; 1991). Secure attachment in adults symbolizes structured parenting patterns (Feldman, 2003).

Research had shown that children who desire to comply to their social world most often had caregivers who responded positively to their needs (Kochanska, 1993). Needs being met positively foster self-confidence that is detrimental to cognitive development (Kochanska, 1993). Caregivers' styles of relationships influence social behavior (Kochanska, 1993). Kochanska's (1993) research was an indication of attachment relationships and the child's development.

Attachment Styles and Parenting

Empirical works of Main and Goldwyn (1985) make implications of attachment styles formed in early years affect on adult attachment styles and the influence on parenting. Classifications' illustrating adult attachment styles influence on parenting was expressed in the works of Carranza and Kilmann (2000). The study focused on one hundred and fifty-four female participants age 19 to 33. The participants rated characteristics and behaviors of parents on a 5-point likert scale. The patterns found applied the adult attachment types: secure, anxious/ambivalent and avoidant. The study revealed consistency with other studies on parenting characteristics relationship to early attachment relationships. According to Fraley (2002), Bowlby's attachment theory leads the way for us to organize our thoughts regarding bonding. He believes that it was unknown to the degree of influence that early attachment had on parenting. Fraley (2002) conducted a longitudinal study to test his hypothesis that attachment patterns in

adulthood were somewhat a reflection of early attachment experiences. The study found that attachment stability maintained over-time. Adults' current state of mind is being linked to attachment, early experiences, and current parenting (Berlin & Cassidy, 2001). State of mind is said to influence parenting through internal working models. Internal working models were early experiences that guide behavior or actions later in life (Bowlby, 1969).

The Adult Attachment Interview (AAI) was classified as secure, insecure/dismissing, and insecure/preoccupied (Main & Solomon, 1986). Adults' falling in the category of secure was seen as valuing attachment relationships and its influence. Adults in the category of insecure/dismissing were seen not valuing attachment and do not recognize its influence. Adults in the category of insecure/preoccupied were seen as overtaken by past experiences. Secure parents were expected to respond to the child's needs that foster the secure base through the eyesight of the child. An insecure parent was not responsive to the child's needs to the satisfaction of the child. The dismissing parent rejects closeness of the child and the child never seeks comfort. The preoccupied parent focus on their own attachment needs and this prevents attention away from the child. These classifications were thought to have influences on real-life childhood and adult attachment experiences (van Ijzendoorn, 1995).

Insecure Mother-Child Attachment

The maternal attachment state of mind can determine the condition of the care-taking environment. An empirical study revealed that a significant number of mothers

with depression participated in the Adult Attachment Interview (McMahon, Barnett, Kowalenko, & Tennant, 2006). These mothers were found to have insecure attachment relationships with their children. A comparative study explored adult attachment style and adult personality disorders with a group of 80 child molesters and 84 normal subjects in relation to parental bonding (Bogaerts, Vanheule, & Declercq, 2005). The molesters group was found to be uncaring and granted more autonomy. This behavior was seen as typical insecure patterns of attachment (Bogaerts et al.).

Independence of the Child

Children and caregivers develop an attachment early in life; they interact and learn what to expect from one another (Bowlby, 1988). As the caregivers make themselves responsive to the child the child develops a model of the self as loved and valued (Bretherton, 1985). Love and valued experiences build confidence in the child, which helps to develop secure strategies when in need, or distress (Larson, 1990). If care-giving experiences does not model love then the child does not expect the caregiver to be responsive. The child then develops insecure strategies for coping when in need or distress. Insecure attachment had been associated with an emotional nature in children (Bretherton, 1985). History of secure attached boys has shown direct influences on there functioning through research studies for attentional dysfunction (Fearon & Belsky, 2004). Emotional nature is often nurtured through parental warmth (Krampen, 1989).

Studies associated with parental warmth had indicated that children had more internal control beliefs (Krampen, 1989). Internal control was related to psychological adjustment influenced by the family (Morton & Mann, 1998). Children's developmental level had bearings on control beliefs (de Man, Leduc, & Labreche-Gauthier, 1992). Carton and Nowicki (1994) proposes that parental warmth provides a sense of safety and security that in terms encourage autonomy. Most parents grant more autonomy as children mature (Bulcroft, Carmody, & Bulcroft, 1996). Children then expect more independence (Feldman, & Rosenthal, 1990).

Krampen (1989) found that parental warmth is combined with both parent and child specific behaviors based on conditional reinforcement. According to Carton and Nowicki (1994) the safety that allows children to explore their environment is contingent on social contrast of the child's behavior. Mothers' encouragement was also found to be associated with the child's internal perception of control (de Man et al., 1992).

Independence and Attachment

Jean Piaget (1969) wanted to understand the mental structures that promote thinking and reasoning in children. Piaget viewed children as constructing knowledge by organizing ways of making sense of their world through what he called schemes (Piaget, 1969). Cognitive schemes change with age and/or development through organization. Organization happens when children form new schemes and link them

with other schemes to create new understanding (Piaget, 1969). Cognitive schemes organize behavior (Piaget, 1969).

Social attachment theory argues that children's relationships with their caregiver organize behaviors (Ainsworth & Bowlby, 1991). In the beginning attachment behavior served to keep the child close to the caregiver for protection (Ainsworth, 1969). During early development the child forms an internal relationship to the caregiver and to their environment (Bowlby, 1969). According to Bowlby, the child is biologically preparing to signal their needs and parents must learn to take cues to allow children to explore their world.

Ainsworth's Strange Situation (1978) illustrates the strength of attachment through four attachment patterns: secure, avoidant, ambivalent, and disorganized-disoriented. Secure attachment provides a secure base for the child when the mother was present (Ainsworth et al., 1978). The avoidant attachment child does not seek contact with its mother and shows little distress in the absence of the mother (Ainsworth et al., 1978). The ambivalent attachment child alternates positive and negative reactions when the mother had left and when she returns (Ainsworth et al., 1978). The disorganized-disoriented attachment child experience confusion and seems to fear the mother (Ainsworth et al., 1978).

Jerome Kagan (1984) believes that children labeled as avoidant had been trained by their parents to be independent. He says that children observed in The Strange Situation (Ainsworth, 1978) as avoidant do not seek contact with the mother because

they are less fearful and may handle stress better. Kagan (1984) also believed that securely attached children had been trained to be dependent and the secure base may have to do more with dependence than with attachment.

Maternal perceptions of children's independent functioning had been measured with the maternal perception of child's independence instrument (Collins, Schoenleber, & Wetsby, 1988). Shulman, Kedem, Kaplan, & Braja (1998) used the instrument in a study of latchkey children. The study compared latchkey and non-latchkey children's measures of functioning. Measures of functioning were measured against levels of maternal perception of their children as independent. Maternal perceptions of the child as independent among the non-latchkey children showed association patterns of fear as in Ainsworth's et al (1978) study. Among latchkey children, maternal perception of the child as independent showed association patterns of anxiety and fear on the part of the child as in Ainsworth's study.

Children rely on caregivers for nurturance in relationships. These early bonding relationships had been linked to social development and attachment (Scroufe, Fox, & Pancake, 1983). The researchers suggest that the quality of the relationships relies on early infant-caregiver relationships. A study on adolescent attachment found that a secure base of maternal relationships and maternal supportiveness was manifested by early mother-child relationships (Allen, MaElhaney, Land, Kuperminc, Moore, O'Beirne-Kelly, & Kilmer, 2003).

Summary

Independence functioning of children was established when the child's closeness to the mother was balanced (Ainsworth et al., 1978). The child moves away from the mother, returns to the mother, and leaves again (Ainsworth et al., 1978). The mother respects her child's advancement toward autonomy and internalizes him or her to be independent (Shulman et al., 1998). The child's sense of confidence and competence was increased (Larson, 1990). When children sense their needs were being met, they cope with stress more positively. Children draw their strength from different sources, whether it's maternal attitudes or maternal encouragement of independence (Shulman et al. 1998).

CHAPTER III

METHODOLOGY

Chapter III examined variables and attempted to answer hypotheses through questionnaire methods. The instruments used to measure the variables under study were described, as were the statistical techniques used to analyze the resulting data.

The purpose of this study was to examine the maternal perceptions of children's independence functioning and mothers' internal working models of attachment. An anonymous online survey administered to participants employed quantitative research methodological techniques. Online surveys had begun to replace traditional methods of data collection (Couper, 2001). Skepticism of online surveys is the representation of meaningful populations (Couper, 2001). Couper (2001) questioned online surveys but now feels they had gained respect and some populations are suited for this method.

Chapter III presents the methods followed in the study. The population and sample were identified. Procedures used for the protection of human subjects were outlined and the research instrumentation was described. Finally, methods of collection and treatment of data were outlined.

The following null hypotheses guided the study, based upon a review of literature pertaining to the research:

Hypothesis 1. There will no a statistically significant difference in mother's perception of her child's independent functioning (MPCI) based on the mothers' attachment style (PAQ).

Hypothesis 2. There will be no statistically significant difference in mothers' perception of their children's independent functioning (MPCI) based on the mothers' educational level and socioeconomic status.

Hypothesis 3. There will be no statistically significant difference in mothers' perception of their children's independent functioning (MPCI) based on the mothers' age, marital status, and working status.

Hypothesis 4. There will be no statistically significant difference in mothers' attachment style (PAQ) based on the mothers' age, marital status, and working status.

Population and Sample

Participants recruited for this study were mothers with children between the ages of 7-11 years. This age range was selected because children normally experience decision-making challenges by the later childhood stage (Erikson, 1963). Children in the selected age range were in the early stages of taking risks and needing to feel successful in the eyes of significant adults. According to Erikson (1963), this stage was known as industry vs. inferiority. At this point children comprehend instructions of how things should be through the world of his culture. The success experienced as a function of this comprehension was a sense of competence.

Fathers were not included in this study. Participants in the research were anonymous. All participants needed Internet access in order to fill out the survey used in this study. A web-based questionnaire was used. The survey contained a brief demographic section and two instruments. The sample size for the study was based on 161 individuals. Most participants were Caucasians followed by African-American and other ethnicities. Most of the participants worked full-time and had a household income of \$80,000 or more. This study employed nonprobability sampling, reliance on volunteer participants, and purposive sampling. Purposive sampling was done with a purpose in mind. A specific predefined group was being sought.

Sampling Procedure

Participants were first recruited by sample of convenience by asking potential participants who were mothers of 7 to 11 year olds to participate in the study via e-mail. The e-mail contained a brief message about the study, instructions on how to access the questionnaire, incentive information, invite to pass the survey to others, and a direct link to the web-based survey. These individuals in turn were asked to forward the email invitation to others who fit the participant criteria. Snowball sampling was used to increase the sample of participants as well. Snowball sampling employs that each participant suggests additional people to participate (Babbie, 2004).

Protection of Human Rights

An application to conduct research was submitted to the Texas Woman's University Institutional Review Board (IRB). Upon acceptance of this research proposal,

an approval to conduct research was posted on the web link site hosting the survey along with an explanation of the research study. The purpose of the study, along with what was entailed in study participation, was described upon entering the website. Upon participating in the survey participants read that their participation was voluntary and they had the right to withdraw at any time.

With the sampling techniques that were used for this study, the researcher knew who some of the participants were, but was not able to match the questionnaire data with the participant. This study involved minimal risk as it regards information being transmitted through the use of the Internet. Loss of time was the most probable risk. The potential benefit for participants was satisfaction that the information they provided may help others.

The confidentiality of information collected by use of an Internet survey was maintained to the full extent of the law. The researcher maintained professional practices ethics at all times (Creswell, 2003). The issue of harm, confidentiality, and informed consent was addressed in the Institutional Review Board application (IRB).

Psychdata.com, a professional online survey company, was employed to host the survey. The website containing the study survey was housed on a secure server accessed only by the researcher through a protected username and password. Identifying information (name, address, and email address) was used solely for the purpose of awarding the incentive to participants. Each participant was given the chance to enter a random drawing for a \$100 gift card. After choosing to participate in the survey

participants were directed to another site to enter the drawing. Each questionnaire was assigned a number followed by a letter identifying the characteristics of the studied population. This was for record keeping purposes only. There was no code numbers signifying identity. Code numbers for all participants were created for the sole purpose of data analysis. Every effort to protect the confidentiality of the participants was exercised by the researcher and as stated in the Institutional Review Board (IRB) application.

Instrumentation

The study used 3 questionnaires to collect the data (see Appendices A, B, and C). Two of the 3 questionnaires were preexisting. Permission was granted to the researcher through email submissions to each author (see Appendix D).

Parent Attachment Questionnaire

For the proposed study, the Parent Attachment Questionnaire (PAQ) (Kenny, 1987) parent version was utilized (see Appendix A). The PAQ is a self-report questionnaire with 20 items, which were scored on a five-point Likert-type scale, ranging from “not at all” to “very much.” On the questionnaire, participants were asked to respond to statements describing the parental relationship between them and their child(ren).

The PAQ is designed to adapt Ainsworth, Blehar, Waters, and Wall’s (1978) conceptualization of attachment for use with parents, late adolescents and young adults. The variables measured were affective quality of relationships, parents as facilitators of independence, and parents as source of support. Scores for internal consistency as well as

validity for content had been reported. The instrument had statements describing parental relationships and the kinds of feelings and experiences frequently reported by parents. A rating from 1 to 5 describes the relationship between parent and child. Number 1 on the scale equals not at all (0-10%), number 2 equals somewhat (11-35%), number 3 on the scale equals a moderate amount (36-65%), number 4 on the scale equals quite a bit (66-90%), and number 5 on the scale equals very much (91-100%). The recorded items reflect the variables measured and were used to compute a total score. Possible scores for the PAQ range from 0 to 100. The total score reflects parental attributes associated with secure attachment.

Maternal Perception of Child's Independence Measure

The Independence Measure (Shulman, Kedem, Kaplan, Sever, & Braja, 1998) consists of 12 items designed to assess "maternal perception" of the child's behaviors that were commonly thought to be characteristic of school-age children and reflect issues of independent functioning (see Appendix B). The Cronbach alpha of the scale is .69. This instrument was patterned on the Behavior Expectations Inventory (Collins, Schoenleber, & Wetsby, 1988). The scales range from "hardly at all" to "extremely". The respondents were asked to rate their perception of their child or children's independence. The variables measured were perceived competence, self-perception, and levels of fear. A rating of 1 to 5 described the maternal perception of the child's independence. Number 1 on the scale equaled hardly at all, number 2 equals somewhat, number 3 equaled very much, number 4 equaled not too much, and number 5 equaled extremely.

Demographic Information Questionnaire

For the purpose of this study a demographic questionnaire was used. This demographic questionnaire asked biological, kinship and custodial mothers the gender of their children, whether they had multiple or single children, the age of their child or children, the mother's education level, age, ethnicity, work status, annual household income, and marital status (see Appendix C).

Procedure

Upon receiving permission from the Texas Woman's University Institutional Review Board (IRB) to conduct a research project a questionnaire was administered to collect quantitative data via an online survey (see Appendices A, B & C). The study participants were first recruited by sample of convenience by asking potential participants who were mothers of 7 to 11 year olds to participate in the study (see Appendix D). Several individuals, who were known to the principal investigator, were asked to participate in the study via e-mail (see Appendix E).

The e-mail contained a direct link to the web-based survey, a description of the study, a participant information letter, and the questionnaire instrument. These individuals in turn were asked to forward the e-mail invitation to others who fit the participant criteria. Snowball sampling was used to increase the sample of participants (Babbie, 1992). Participants recruited in person were provided a letter detailing the study (see Appendix D). The letter included names, telephone numbers, and e-mail addresses of the researcher and the research advisor.

The letter also informed the participants that no identifying information, such as name, address, telephone number, or e-mail address would be collected when an individual submitted a completed survey online. Those who chose to participate in the survey would not be contacted in any way by the researcher or by anyone else as a result of their participation. The participants were assured of the confidentiality of their answers and informed that the website containing the study survey would be housed on a secure server accessed only by the researcher through a protected user name and password. The letter also indicated that the study was voluntary and they had the right to withdraw at any time.

When entering the researcher's website, the participants read the Consent to Participate form which explained the research study and included a statement to consent to complete the survey (see Appendix F). The Parent Attachment Questionnaire followed choosing the number on the Likert scale that best represented their opinion of the 20 items. Next the participants chose the number on the Likert scale of the Maternal Perception of Child's Independence Measure that best represented their opinion of the 12 items using the Psych data online survey function. The demographic information included age, ethnicity, and relation to child, marital status, education level, working status, income, and number of children, ages, and gender of children.

After completing the survey, participants were directed to a second website to enter the incentive drawing. Participants were asked to enter their name, E-mail address, and telephone number if they would like to be included in the drawing. The survey

informed participants before giving this information that this identifying information was given only for the purposes of the incentive drawing and would not be linked to the original survey data and that upon completion of the study this identifying information would be permanently deleted. The incentive was offered to increase participation in the study. A random number drawing chose the winner. The researcher posted that the winner would be notified 5 days after the close of the study.

Analysis

Data was analyzed using SPSS version 15.0. Descriptive statistics, including measures of central tendency for continuous variables and frequencies for categorical variables, were evaluated. Preliminary analyses to determine the relationships between the independent variables included Pearson's Product Moment correlations for the continuous variables, χ^2 tests for the categorical variables, as well as independent t-tests and ANOVAs to test for differences between the levels of categorical variables on the continuous variables. These preliminary analyses determined any multicollinearity between variables. For variables with multicollinearity, one variable was chosen for regression analyses. Multicollinearity between two variables was set at $r > .8$ for continuous measures, and Cramer's $V > .8$ for χ^2 test of association.

Hypothesis 1. There will be no statistically significant difference in mother's perception of her child's independent functioning based on the mothers' attachment style.

Two simple linear regressions were conducted to predict independence score from (a) the attachment score, and (b) an attachment category (secure vs. insecure) derived

from the attachment score. Two simple logistic regressions were also conducted to predict independence category (high vs. low independence) from the attachment score and from the attachment category.

Logistic regression was a form of regression that was used with dichotomous dependent variables and continuous and/or categorical independent variables. The technique was based on transforming data by taking the natural logarithms and estimating parameters using maximum likelihood estimation. Logistic regression, therefore, estimates the odds of an event occurring by calculating changes in the log odds of the dependent variable. Logistic regression techniques do not assume linear relationships between the independent and dependent variables, does not require normally distributed variables, and does not assume homoscedasticity. However, the observations must be independent and the independent variables must be linearly related to the logit of the dependent variable. The chi-square test and the Hosmer and Lemeshow chi-square test can be used to assess the significance of logistic regression models. A significant finding for the traditional chi-square test ($p < .05$) indicates that the model was significant and that there was an adequate fit of the data to the model. A non-significant Hosmer and Lemeshow chi-square test ($p > .05$), on the other hand, indicates that the model adequately fits the data. The Hosmer and Lemeshow chi-square test was considered to be more robust than the traditional chi-square test.

Hypothesis 2. There will be no statistically significant difference in mothers' perception of their children's independent functioning based on the mothers' educational level and socioeconomic status.

A simple linear regression was conducted to predict independence score from income level (a measure of socioeconomic status), measured as a continuous independent variable. A multiple regression was conducted to predict independence score from education level because there were several categories of the education level variable.

Multiple regression analysis was used with continuous dependent variables and categorical or continuous independent variables. The technique assumes that the independent and dependent variables were linearly related, homoscedasticity (same level of relationships throughout the range of the independent variable), variables were normally distributed, and that the variables were measured without error. In addition, it was important to avoid multicollinearity, or the condition in which the independent variables were highly correlated.

Because categorical predictor variables cannot be entered directly into a regression model and be meaningfully interpreted, dummy variables were a way of adding the values of a nominal or ordinal variable to a regression equation. The process of creating dichotomous variables from categorical variables was called dummy coding (Cohen & Cohen, 1983). The standard approach to modeling categorical variables were to include the categorical variables in the regression equation by converting each level of each categorical variable into a variable of its own, usually coded 0 or 1.

In general, a categorical variable with k levels was transformed into $k-1$ variables each with two levels. For example, the education level variable was a categorical variable that had four levels, so three dichotomous variables were constructed that would contain the same information as the single categorical variable. In this case education level was converted into the dummy variables "Some college" and "Associate's Degree" and "Master's Degree." For instance, in the "Some college" variable, "1" means the attribute of interest is present (ex. Yes = 1 means the participant has had only some college). One of the levels had to be left out of the regression model to avoid perfect multicollinearity (singularity; redundancy), which prevent a solution (for example, leave out "Graduate degree" to avoid singularity). The omitted category was the reference category because b coefficients must be interpreted with reference to it. A positive beta coefficient for any included group means it scored higher on the response variable than did the reference group, or if negative, then lowers. A significant beta coefficient for any included group means that group was significantly different on the response variable from the reference group (Cohen & Cohen, 1983).

A simple logistic regression was conducted to predict independence category from income level, measured as a continuous independent variable. A multiple logistic regression was conducted to predict independence category from education level, again because there were several categories of the education level variable.

Hypothesis 3. There will be no statistically significant difference in mothers' perception of their children's independent functioning based on the mothers' age, marital status, and working status.

Three simple linear regressions were conducted to predict independence score from the mother's (a) age, (b) marital status, and (c) work status. Next a multiple regression was conducted with the same three variables all entered in the same model with independence score again as the predictor. The purpose of the multiple regression was to test for the effect of each of the three variables (age, marital status, and work status) while controlling for the effects of the other variables. The multiple regression also provides information on the overall fit of the three variables to predict the dependent variable.

Three simple logistic regressions were also conducted to predict independence category (high vs. low independence) from the mother's (a) age, (b) marital status, and (c) work status. A multiple logistic regression was also conducted with the same three variables all entered in the same model with independence category again as the predictor.

Hypothesis 4. There will be no statistically significant difference in mothers' attachment style based on the mothers' age, marital status, and working status.

Three simple linear regressions were conducted to predict attachment score from the mother's (a) age, (b) marital status, and (c) work status. Next a multiple regression was conducted with the same three variables all entered in the same model with

attachment score again as the predictor. Three simple logistic regressions were also conducted to predict attachment category (secure vs. insecure) from the mother's (a) age, (b) marital status, and (c) work status. A multiple logistic regression was also conducted with the same three variables all entered in the same model with attachment category again as the predictor. Table 4 shows the independent and dependent variables associated with each hypothesis, as well as the statistical tests and the measures used to test each hypothesis.

Summary

This chapter was a review of the data collections, procedures, and the treatment of data for this study (see Table 4). Validity and reliability of the instruments were discussed along with confidentiality of participants taking part in the research. The participants were asked to complete a demographic information sheet, the parental attachment questionnaire and the maternal perception of child's independence measure. The data was used for this study only and to inform future research. Quantitative statistical tests were used to analyze the data.

Table 4

Summary of Variables and Statistical Tests Used for Each Hypothesis

Hyp.	Independent Variable (IV)	Dependent Variable (DV)	Statistical Test	Measures
#1	PAQ Score PAQ Category (Secure vs. Insecure)	Maternal Perception of Child's Independence Score	Simple linear regressions	IV = Parental Attachment Questionnaire
		Maternal Perception of Child's Independence Category (High vs. Low)	Simple logistic regressions	DV = Maternal Perception of Child's Independence Measure
#2	Maternal Characteristics: Education Level Income level	Maternal Perception of Child's Independence Score	Simple linear regressions	IV = Education Level Income Level
		Maternal Perception of Child's Independence Category (High vs. Low)	Multiple regression Simple logistic regressions	DV = Maternal Perception of Child's Independence Measure
			Multiple logistic regression	

Table 4, continued

Summary of Variables and Statistical Tests Used for Each Hypothesis

Hyp.	Independent Variable (IV)	Dependent Variable (DV)	Statistical Test	Measures
43	#3 Maternal Characteristics: Age Marital Status Working Status	Maternal Perception of Child's Independence Score	Simple linear regressions Multiple regression	IV = Mother's Age Married vs. Other Works Full Time vs. Other
		Maternal Perception of Child's Independence Category (High vs. Low)	Simple logistic regressions Multiple logistic regression	DV = Maternal Perception of Child's Independence Measure
44	#4 Maternal Characteristics: Age Marital Status Working Status	Parental Attachment Questionnaire Score	Simple linear regressions Multiple regression	IV = Mother's Age Married vs. Other Work Full Time vs. Other
		Parental Attachment Questionnaire Category (Secure vs. Insecure)	Simple logistic regressions Multiple logistic regression	DV = Parental Attachment Questionnaire

CHAPTER IV

RESULTS

Research studies supported parent-child relationships and the effects in later life. The impact of parental rearing behaviors had been linked to later adolescents internalizing and externalizing rejection, and over protection (Muris, Meesters, & Van den Berg, 2003). Older adolescents' identity development and positive self-image had been measured by levels of attachment to parents and found that attachment to parents had a positive impact on self-image (Koon, 1997). The primary purpose of this study was to examine maternal attachment styles (secure/insecure) and their relationships to the perceived independence of the child by the Maternal Perception of Child's Independence Measure (Shulman et al., 1998). The study also examined attachment style factors measured by the Parental Attachment Questionnaire (Kenny, 1987). These instruments address the parental relationship between mothers and their children.

A total of 196 respondents logged on to the online survey. Of these respondents, 3 individuals logged on but did not respond to any of the questions, 17 respondents did not have children between the ages of 7 and 11, 10 respondents had a child in the appropriate age range but did not respond to questions beyond the demographics, and 5 respondents quit halfway through the survey. These 35 respondents were excluded from the sample, and thus, the final sample was based on 161 mothers with children between the age of 7 and 11 years.

Demographics

The frequencies and percentages for the categorical demographic variables are displayed in Table 5. The majority of mothers were natural or biological parents (88.2%). The average age was 36.75 ($SD = 5.56$) and ranged from 25 to 65 years (see Table 6). Most of the mothers were married (83.2%), less than 10% were divorced (7.5%), and even fewer were separated (4.3%), never married (3.7%), widowed (0.6%), or another marital status (0.6%). In terms of work status, the majority of mothers worked full-time (72.7%) and only 15.5% reported that they were stay-at-home moms. Less than 10% of the mothers worked part-time (6.8%), worked from home (3.7%), or had another work status (1.2%).

Nearly one quarter of the respondents reported household incomes of \$100,000 or more (24.2%) and only 13% reported incomes less than \$40,000. In terms of education level, a similar proportion of respondents had a master's degree (29.8%) or some college (27.3%). Slightly less had a graduate degree (21.1%) or an associate's degree (18%), and only 3.7% of participants had a high school education or GED. Finally, approximately 80% of the respondents were Caucasian (41%) or African-American (38.5%). Less than 10% of participants were Asian/Pacific Islander (9.3%), Hispanic/Latino (8.1%), or another race category (3.1%).

Table 5

Frequencies and Percentages for Categorical Demographic Variables (N = 161)

	Frequency	%
Parent Type		
Natural/Biological	142	88.2
Step	6	3.7
Foster	4	2.5
Adoptive	5	3.1
Grandparent	3	1.9
Other	1	.6
Marital Status		
Married	134	83.2
Divorced	12	7.5
Separated	7	4.3
Never Married	6	3.7
Widowed	1	.6
Other	1	.6
Work Status		
Full-time	117	72.7
Part Time	11	6.8
Work from Home	6	3.7
Stay Home Mom	25	15.5
Other	2	1.2

Note: Frequencies not adding to 161 and percentages not adding to 100% reflect missing data.

Table 5, continued

Frequencies and Percentages for Categorical Demographic Variables (N = 161)

	Frequency	%
Education Level		
High School or GED	6	3.7
Some College	44	27.3
Associates degree	29	18.0
Masters degree	48	29.8
Graduate degree	34	21.1
Household Income		
Less than \$20,000	6	3.7
\$20,000 - \$29,999	5	3.1
\$30,000 - \$39,999	10	6.2
\$40,000 - \$49,999	18	11.2
\$50,000 - \$59,999	10	6.2
\$60,000- \$69,999	20	12.4
\$70,000- \$79,999	13	8.1
\$80,000- \$89,999	14	8.7
\$90,000- \$99,999	26	16.1
\$100,000 or More	39	24.2
Ethnicity		
African American	62	38.5
Asian/Pacific Islander	15	9.3
Caucasian	66	41.0
Hispanic/Latino	13	8.1
Other	5	3.1

Note: Frequencies not adding to 161 and percentages not adding to 100% reflect missing data.

Table 6

Average Age of Respondents

	N	Mean	SD	Min	Max
Age	160	36.75	5.56	25	65

As part of the survey, respondents were asked to indicate the number of children that they had, as well as the ages of their children. As shown in Table 7, respondents had between one and seven children, with an average of two children ($M = 2.20$, $SD = 1.00$). Respondents had between one and four children between the ages of 7 and 11 years, with an average of one child ($M = 1.35$, $SD = .60$) between the ages of 7 and 11 years. Additionally, the average ages of the children between the ages of 7 and 11 years was as follows: child one ($M = 8.90$, $SD = 1.37$), child two ($M = 8.75$, $SD = 1.36$), child three ($M = 9.88$, $SD = .83$), and child four ($M = 7.50$, $SD = .71$).

Relationships Among Independent Variables

Due to the distribution of the sample across the categories of the demographic variables, groups were combined for further analyses. More specifically, because a majority of the respondents were married (83.2%), all other levels of marital status were collapsed into another category for comparison, referred to as “other marital status.” Similarly, the majority of participants worked full-time (72.7%), and therefore, all other

levels of work status were collapsed into one group for comparison, referred to as “other work status.” In terms of income, only 3.7% of the sample had incomes less than \$20,000 and 3.1% had incomes between \$20,000 and \$29,999. Therefore, these two income categories were combined to reflect incomes less than \$30,000. In addition, a small proportion of respondents indicated that their highest education level was high school (3.7%). These respondents were therefore combined with the “some college” group and referred to as “some college or less.” Finally, Asian/Pacific Islander, Hispanic/Latino, and Other Ethnicity each represented less than 10% of the participants and were therefore combined and collectively referred to as “other race.” Thus the ethnicity category was made up of Caucasian, African American, and other race.

Table 7

Means and Standard Deviations for Continuous Child Demographic Variable

	N	Mean	SD	Min Age	Max Age
Total number of children	161	2.20	1.00	1	7
Total number of children ages 7 to 11	159	1.35	0.60	1	4
Age of Child 1 between 7 and 11	157	8.90	1.37	7	11
Age of Child 2 between 7 and 11	48	8.75	1.36	7	11
Age of Child 3 between 7 and 11	8	9.88	0.83	9	11
Age of Child 4 between 7 and 11	2	7.50	0.71	7	8

Analyses were then conducted to examine the relationships between the independent variables. More specifically, crosstab analysis using Pearson's chi-square and Cramer's V tests were conducted to examine the relationships between the categorical independent variables. Independent sample t -tests and one-way analysis of variance were conducted to examine relationships between categorical and continuous independent variables. Finally, Pearson's product moment correlations were conducted to examine the relationships between continuous independent variables. Correlation coefficients are sensitive to sample size, with larger samples ($N > 200$) having weak effects ($r < .300$) that are significant ($p < .05$) only due to the large sample size (Cohen & Cohen, 1975). The present sample of 161 falls under the 200n, however extremely weak effects ($r < .15$) that are significant ($p < .05$) should be interpreted with caution.

The relationships between marital status and the other categorical independent variables are displayed in Table 8. The relationship between marital status and work status was not significant, $\chi^2(1) = .086$, ns , Cramer's $V = .02$, ns . The relationship between marital status and income level was significant, $\chi^2(8) = 36.154$, $p < .001$, Cramer's $V = .47$, $p < .001$. Although the relationship was significant, nine cells had counts less than 5, caution should be exercised when interpreting this result. Married participants tended to have higher income levels compared to participants who were not married. For instance, 27.6% of married participants had a household income of \$100,000 or more, compared to only 7.4% of participants who were not married (i.e. divorced, separated, widowed, or never married). A smaller proportion of married

mothers had a household income of less than \$30,000 (2.2%) compared to other participants (29.6%).

Table 8

Frequencies and Percentages for Work Status, Income Level, Education Level, and Ethnicity by Marital Status

Variable	<u>Married</u>		<u>Other</u>		χ^2	<i>p</i>
	n	%	n	%		
Work Status					.086	.769
Full-time	98	73.1	19	70.4		
Other	36	26.9	8	29.6		
Income Level					36.154	<.001
Less than \$30,000	3	2.2	8	29.6		
\$30,000 - \$39,000	6	4.5	4	14.8		
\$40,000 - \$49,000	16	11.9	2	7.4		
\$50,000 - \$59,000	9	6.7	1	3.7		
\$60,000 - \$69,000	19	14.2	1	3.7		
\$70,000 - \$79,000	10	7.5	3	11.1		
\$80,000 - \$89,000	11	8.2	3	11.1		
\$90,000 - \$99,000	23	17.2	3	11.1		
\$100,000 or more	37	27.6	2	7.4		
Education Level					9.969	.019
Some College or Less	35	26.1	15	55.6		
Associates Degree	25	18.7	4	14.8		
Masters Degree	42	31.3	6	22.2		
Graduate Degree	32	23.9	2	7.4		
Ethnicity					13.092	.001
African American	52	38.8	10	37.0		
Caucasian	61	45.5	5	18.5		
Other	21	15.7	12	44.4		

There was a significant relationship between marital status and education level, $\chi^2(3) = 9.969, p < .05$, Cramer's $V = .25, p < .05$. A smaller proportion of married respondents had some college or less (26.1%) compared to participants with another marital status (55.6%). Similarly, more married respondents had graduate degrees (23.9%) and a smaller proportion of respondents with another marital status had a graduate degree (7.4%). The relationship between marital status and ethnicity was also significant, $\chi^2(2) = 13.092, p = .001$, Cramer's $V = .29, p < .01$. A greater percentage of married participants were Caucasian (45.5%) compared to participants with another marital status (18.5%). In contrast, 15.7% of married participants had another ethnicity classification, while 44.4% of participants with another marital status had another ethnicity classification.

The relationships between work status and the other categorical independent variables are displayed in Table 9. The relationship between work status and household income was not significant, $\chi^2(8) = 6.595, ns$, Cramer's $V = .20, ns$. Similarly, the relationship between work status and education level was not significant, $\chi^2(3) = 2.955, ns$, Cramer's $V = .14, ns$. The relationship between work status and ethnicity was significant, $\chi^2(2) = 10.388, p < .01$, Cramer's $V = .25, p < .01$. A greater proportion of participants who worked full-time were African-American (43.6%) compared to those with another work status (i.e. work part-time, retired, or unemployed) (32.2%). A smaller proportion of those who worked full-time were Caucasian (33.3%) compared to those with other work status (61.4%).

Table 9

Frequencies and Percentages for Income Level, Education Level, and Ethnicity by Work Status

Variable	<u>Full-time</u>		<u>Other</u>		χ^2	<i>p</i>
	n	%	n	%		
Income Level					6.595	.581
Less than \$30,000	7	6.0	4	9.1		
\$30,000 - \$39,000	8	6.8	2	4.5		
\$40,000 - \$49,000	15	12.8	3	6.8		
\$50,000 - \$59,000	6	5.1	4	9.1		
\$60,000 - \$69,000	15	12.8	5	11.4		
\$70,000 - \$79,000	12	10.3	1	2.3		
\$80,000 - \$89,000	10	8.5	4	9.1		
\$90,000 - \$99,000	19	16.2	7	15.9		
\$100,000 or more	25	21.4	14	31.8		
Education Level					2.955	.399
Some College or Less	33	28.2	17	38.6		
Associates Degree	22	18.8	7	15.9		
Masters Degree	34	29.1	14	31.8		
Graduate Degree	28	23.9	6	13.6		
Ethnicity					10.388	.006
African American	51	43.6	11	25.0		
Caucasian	39	33.3	27	61.4		
Other	27	23.1	6	13.6		

The relationships between ethnicity and the remaining categorical independent variables are displayed in Table 10. The relationship between ethnicity and household income level was significant, $\chi^2(16) = 26.747, p < .05$, Cramer's $V = .29, p < .05$. Although the relationship was significant, 11 cells have counts less than 5; caution should be exercised when interpreting this finding. A greater proportion of participants who were Caucasian made \$90,000 (25.8%) compared to African-American participants (9.7%) or participants with other ethnicities (9.1%). The relationship between ethnicity and education level was not significant, $\chi^2(6) = 9.923, ns$, Cramer's $V = .18, ns$.

Finally, the relationship between education level and household income level is displayed in Table 11. The results revealed a significant relationship between education and income, $\chi^2(24) = 70.748, p < .001$, Cramer's $V = .38, p < .001$. Although the relationship was significant, 25 cells had counts less than five; therefore caution should be exercised when interpreting this finding. The majority of participants with some college or less had income levels of less than \$50,000 (58%) while the majority of participants with a graduate degree had income levels of \$90,000 or more (76.5%).

Two separate one-way ANOVAs were conducted to examine the relationships between age and the categorical independent variables of education level and ethnicity (see Table 12). The results of the first ANOVA revealed significant effects for education level on age, $F(3, 156) = 3.134, p < .05$. Post hoc comparisons using the Tukey HSD test revealed that participants with a graduate degree were significantly older ($M = 38.82, SD = 4.52$) than those with some college or less ($M = 35.51, SD = 6.20, p < .05$).

Participants with an Associate's degree ($M = 35.52$, $SD = 4.93$) and those with a Master's Degree ($M = 37.29$, $SD = 5.54$) did not differ from any other education level. The results of the second ANOVA revealed no significant effect for ethnicity on age, $F(2, 157) = 2.285$, *ns*. The ages of African-American participants ($M = 37.93$, $SD = 6.96$), Caucasian participants ($M = 35.95$, $SD = 4.59$), and those with other ethnicities ($M = 36.15$, $SD = 3.96$) did not differ significantly.

Table 10

Frequencies and Percentages for Income Level and Education Level by Ethnicity

Variable	<u>African American</u>		<u>Caucasian</u>		<u>Other</u>		χ^2	<i>p</i>
	n	%	n	%	n	%		
Income Level							26.747	.044
Less than \$30,000	6	9.7	4	6.1	1	3.0		
\$30,000 - \$39,000	3	4.8	2	3.0	5	15.2		
\$40,000 - \$49,000	4	6.5	8	12.1	6	18.2		
\$50,000 - \$59,000	5	8.1	5	7.6	0	0.0		
\$60,000 - \$69,000	11	17.7	4	6.1	5	15.2		
\$70,000 - \$79,000	7	11.3	3	4.5	3	9.1		
\$80,000 - \$89,000	3	4.8	8	12.1	3	9.1		
\$90,000 - \$99,000	6	9.7	17	25.8	3	9.1		
\$100,000 or more	17	27.4	15	22.7	7	21.2		
Education Level							9.923	.128
Some College or Less	16	25.8	24	36.4	10	30.3		
Associates Degree	8	12.9	16	24.2	5	15.2		
Masters Degree	26	41.9	12	18.2	10	30.3		
Graduate Degree	12	19.4	14	21.2	8	24.2		

Table 11

Frequencies and Percentages for Income Level by Education Level

Variable	<u>Some College or Less</u>		<u>Associates Degree</u>		<u>Masters Degree</u>		<u>Graduate Degree</u>		χ^2	<i>p</i>
	n	%	n	%	n	%	n	%		
Income Level									70.748	.000
Less than \$30,000	8	16.0	3	10.3	0	.0	0	.0		
\$30,000 - \$39,000	6	12.0	2	6.9	2	4.2	0	.0		
\$40,000 - \$49,000	15	30.0	2	6.9	1	2.1	0	.0		
\$50,000 - \$59,000	3	6.0	3	10.3	3	6.3	1	2.9		
\$60,000 - \$69,000	4	8.0	4	13.8	10	20.8	2	5.9		
\$70,000 - \$79,000	4	8.0	3	10.3	4	8.3	2	5.9		
\$80,000 - \$89,000	1	2.0	3	10.3	7	14.6	3	8.8		
\$90,000 - \$99,000	5	10.0	3	10.3	8	16.7	10	29.4		
\$100,000 or more	4	8.0	6	20.7	13	27.1	16	47.1		

Independent sample t-tests were conducted to examine the relationships between marital status and work status on age (see Table 13). The results failed to reveal significant differences between those who were married ($M = 36.57$, $SD = 5.49$) and those who had another marital status ($M = 37.65$, $SD = 5.97$) on age, $t(158) = -.905$, *ns*. Similarly, the results failed to reveal significant differences between those who worked full-time ($M = 36.36$, $SD = 4.75$) and those who did not work full-time ($M = 37.77$, $SD = 7.26$) on age, $t(158) = -1.437$, *ns*.

Table 12

Means and Standard Deviations for Age by Education and Ethnicity

	N	Age Mean	SD	F	p
Education Level				3.134	.027
Some College or Less	49	35.51 ^{ab}	6.20		
Associates Degree	29	35.52 ^a	4.93		
Masters Degree	48	37.29 ^a	5.54		
Graduate Degree	34	38.82 ^{ac}	4.52		
Ethnicity				2.285	.105
African American	61	37.93 ^a	6.96		
Caucasian	66	35.95 ^a	4.59		
Other	33	36.15 ^a	3.96		

Note: Means with different superscripts differed significantly from one another as determined by Tukey's post hoc test, $p < .05$.

Pearson's product moment correlations were conducted to examine the relationship between age and income (see Table 14). The results revealed a significant positive correlation between age and income level, $r(158) = .226, p < .01$, indicating that older ages were associated with higher levels of household income.

Table 13

Means and Standard Deviations for Age by Work Status and by Marital Status

	N	Mean	SD	<i>t</i>	<i>p</i>
Marital Status				-.905	.367
Married	134	36.57	5.49		
Other	26	37.65	5.97		
Work Status				-1.437	.153
Full-time	116	36.36	4.74		
Other	44	37.77	7.26		

Table 14

Pearson's Product Moment Correlations between Age and Income Level (N = 160)

	Age r^2
Income Level	.226 ** 5%

Note: ** $p < .01$.

Primary Analyses

The primary analyses were conducted to test each of the four hypotheses. Four types of regression analyses were used to examine components of each of the four hypotheses. Simple linear regressions were used to examine the effects of each independent variable separately on the continuous dependent variables. Multiple regressions were used to examine the effects of several independent variables on the continuous dependent variable, while controlling for the effects of the other independent variables. Simple and multiple logistic regressions were used in the same manner for the dependent variables which were categorical instead of continuous.

The dependent variable for each of the first three hypotheses was a measure of independence, which is a measure of the mother's perception of her child's level of independence. Each of these three hypotheses was tested using independence score as a continuous dependent variable (the actual score from the independence measure) and also by using a categorical dependent variable derived from the independence score (high independence vs. low independence). That is, based on the sample distribution across these scores, approximately 50% of the sample, or those with an independence score less than 48 (50.3%), were categorized as having "low" independence level and 49.7% were categorized as having "high" independence levels (scores of 47 or greater).

The dependent variable for the fourth hypotheses was a measure of attachment, and was tested using the attachment score as a continuous dependent variable (the actual score from the Parental Attachment Questionnaire) and also by using a categorical

dependent variable derived from the attachment score (secure vs. insecure). That is, based on the sample distribution across these scores, approximately 50% of the sample, or those with an attachment score less than 82 (49.1%), were categorized as having “low” or “insecure” attachment levels and 50.9%, or those with attachment scores of 82 or greater, were categorized as having “high” or “secure” attachment levels. The average independence and attachment scores are displayed in Table 15.

Table 15

Means and Standard Deviations for Independence Score and Attachment Score

	<i>N</i>	Mean	<i>SD</i>	Min	Max
Independence Score	161	46.05	6.83	28	59
Attachment Score	161	81.01	7.40	52	95

Independence Scores

Simple linear regressions were conducted to test for variables, which are individual predictors of the independence score, as measured by the Maternal Perceptions of Child’s Independence Measure (see Table 16). The predictors included attachment score and attachment category (Hypothesis 1); income and education level (Hypothesis 2); and age, marital status and work status (Hypothesis 3). The first simple regression

revealed attachment score was a significant predictor of independence score [$F(1, 159) = 11.697, p < .01$], and accounted for 6.9% of the variance. The results indicated that higher attachment scores predict higher independence scores ($Beta = .262, p < .01$). Similarly attachment category was a significant predictor of independence score [$F(1, 159) = 9.622, p < .01$] and accounted for 5.7% of the variance. The results indicate that a high level of attachment predicts higher independence score ($Beta = .239, p < .01$). Age of mothers' was also a significant predictor of independence score [$F(1, 158) = 5.012, p < .05$] and accounted for 3.1% of the variance. The results indicated that older ages predict lower independence scores ($Beta = -.175, p < .05$). The results failed to reveal significance for income level, marital status, and work status ($p > .05$).

There were four levels of education level, and therefore, this variable was dummy coded into three variables for entry into the regression model. More specifically, some college was set to 1 and all other education levels were set to 0 to create the variable "some college or less". Similarly, respondents with an associate's degree were set to 1 and all others were set to 0 to create the variable "associate's degree". Finally, all participants with a master's degree were set to 1 and all others were set to 0 to create the variable "master's degree". A multiple regression analysis was then conducted on independence score using the three dummy coded education variables as predictors (see Table 17). The results indicated that the overall model was not significant, $F(3, 157) = 2.307, ns$. However, the results revealed that having an associate's degree predicted

higher independence scores ($Beta = .246, p < .05$). Based on these statistical findings for hypothesis one, the null hypothesis is not rejected.

Table 16

Summary of Simple Linear Regression Analysis for Variables Predicting Independence Score

	β	SE	Beta	t	p
Attachment Score ($F\ 1, 159 = 11.697, p < .01, R^2 = .069$)					
	.242	.071	.262	3.420	.001
Attachment Category ($F\ 1, 159 = 9.622, p < .01, R^2 = .057$)					
	3.254	1.049	.239	3.102	.002
Income Level ($F\ 8, 152 = .857, p > .05, R^2 = .005$)					
	.189	.204	.073	.926	.356
Age ($F\ 1, 158 = 5.012, p < .05, R^2 = .031$)					
	-.215	.096	-.175	-2.239	.027
Married ($F\ 1, 158 = .998, p > .05, R^2 = .006$)					
	1.439	1.441	.079	.999	.319
Works Full-Time ($F\ 1, 158 = 2.179, p > .05, R^2 = .014$)					
	-1.777	1.204	-.116	-1.476	.142

Table 17

Multiple Regression Analysis for Levels of Education as Predictors of Independence Score

	β	<i>SE</i>	Beta	<i>t</i>	<i>p</i>
Education Level ($F\ 3, 157 = 2.307, p > .05, R^2 = .042$)					
Some College or Less	1.482	1.500	.101	.988	.325
Associate's degree	4.365	1.706	.246	2.559	.011
Master's degree	2.299	1.513	.154	1.520	.131

A multiple regression analysis was conducted on independence score using Age, marital status, and work status as predictors (Hypothesis 3). The model, $F(3, 156) = 2.821, p < .05$, accounted for 5.1% of the variance in the independence scores ($R^2 = .051$). As shown in Table 18, controlling for the other variables, independence scores were predicted by age ($Beta = -.187, p < .05$). The results indicated that older age predicted lower independence scores. Marital status ($Beta = .055, ns$) and work status ($Beta = -.135, ns$) were not significant predictors of independence score.

Table 18

Summary of Multiple Regression Analysis for Variables Predicting Independence Score

	β	<i>SE</i>	<i>Beta</i>	<i>t</i>	<i>p</i>
Age	-.229	.096	-.187	-2.374	.019
Married	1.009	1.442	.055	.700	.485
Works Full-Time	-2.062	1.196	-.135	-1.724	.087

Independence Category

Simple logistic regression analyses were also conducted to test hypotheses 1-3 using independence category as the dependent variable. As seen in Table 19, the attachment variables and the demographic variables were tested as predictors of independence category (1 = high independence vs. 0 = low independence). The first model used attachment score as the predictor, revealing that higher attachment scores predicted greater odds of high independence (*Odds Ratio* = 1.058, $p < .05$). The second model used attachment category as the predictor, revealing that attachment category predicted greater odds of higher independence (*Odds Ratio* = 2.836, $p < .01$). A model was also run which used age as the predictor, revealing that older ages predicted lower

odds of high independence (*Odds Ratio* = .923, $p < .05$). The models, which used income level, marital status, and work status, were not significant ($p > .05$).

Table 19

Summary of Simple Logistic Regression Analysis for Variables Predicting Independence Category

	β	<i>S.E.</i>	<i>Wald</i>	<i>Odds Ratio</i>	<i>p</i>
Attachment Score	.057	.024	5.777	1.058	.016
Attachment Category	1.043	.326	10.221	2.836	.001
Income Level	.028	.060	.226	1.029	.634
Age	-.080	.032	6.139	.923	.013
Married	.434	.428	1.030	1.544	.310
Works Full-Time	-.268	.355	.570	.765	.450

A multiple logistic regression analysis was conducted for independence category using the three dummy coded education variables as predictors (see Table 20). The results reveal that having some college predicted greater odds of high independence (*Odds Ratio* = 2.600, $p < .05$), and having an associate's degree also predicted greater odds of high independence (*Odds Ratio* = 5.333, $p < .01$). Based on these statistical findings for hypothesis two, the null hypothesis is not rejected.

Table 20

Multiple Logistic Regression Analysis for Levels of Education as Predictors of Independence Category

	β	<i>S.E.</i>	<i>Wald</i>	<i>Odds Ratio</i>	<i>p</i>
Some College	.956	.471	4.116	2.600	.042
Associate's Degree	1.674	.550	9.255	5.333	.002
Master's Degree	.875	.474	3.406	2.400	.065

A multiple logistic regression analysis was also conducted to predict independence category using age, marital status (married vs. other), and work status (full-time vs. other) as predictors (Table 21). The results revealed that lower odds of having high independence were predicted by age (*Odds Ratio* = .922, $p < .05$). Marital status

and work status were not significant predictors. Based on these statistical findings for hypothesis three, the null hypothesis is rejected.

Table 21

Summary of Multiple Logistic Regression Analysis for Variables Predicting Independence Category

	β	<i>S.E.</i>	<i>Wald</i>	<i>Odds Ratio</i>	<i>p</i>
Age	-.081	.032	6.362	.922	.012
Married	.314	.445	.496	1.369	.481
Works Full-Time	-.372	.369	1.015	.689	.314

Attachment Score

Simple linear regressions were conducted to examine the predictive effects of the demographic variables on Attachment Scores, as measured by the Parent Attachment Questionnaire (Hypothesis 4). As shown in Table 22, full-time work by the mother was a significant predictor of Attachment Score [$F(1, 159) = 5.352, p < .05$], and accounted for 3.3% of the variance. Working full-time predicted higher attachment scores ($Beta = .180, p < .05$). Age and marital status, however, were not significant predictors of attachment score ($p > .05$).

Table 22

Summary of Simple Regression Analysis for Variables Predicting Attachment Score

	β	SE	Beta	t	p
Age ($F\ 1, 158 = .096, p > .05, R^2 = .001$)					
	-.033	.105	-.025	-.310	.757
Married ($F\ 1, 158 = 2.893, p > .05, R^2 = .018$)					
	2.640	1.552	.134	1.701	.091
Works Full-time ($F\ 1, 159 = 5.352, p < .05, R^2 = .033$)					
	2.988	1.292	.180	2.313	.022

A multiple regression analysis was conducted on attachment score using age, marital status, and work status as predictors (Hypothesis 4). The model, $F(3, 156) = 3.017, p < .05$, accounted for 5.5% of the variance in test scores ($R^2 = .055$). As shown in Table 23, controlling for the other variables, attachment score was predicted by marital status ($Beta = .155, p < .05$) and work status ($Beta = 0.172, p < .05$). Being married and working full-time both predicted higher, or more secure, attachment scores. Age, however, was not a significant predictor of attachment. Based on these statistical findings for hypothesis four, the null hypothesis is not rejected.

Table 23

Summary of Multiple Regression Analysis for Variables Predicting Attachment Style

	β	SE	Beta	t	p
Age	.008	.104	.006	.076	.939
Married	3.084	1.553	.155	1.986	.049
Works Full-Time	2.821	1.288	.172	2.189	.030

Attachment Category

In order to further examine Hypothesis 4, three simple logistic regression analyses were conducted to predict attachment (1 = secure vs. 0 = insecure) using age, marital status, and work status as separate predictors (see Table 24). The results failed to reveal significant effects for any of the models.

A multiple logistic regression analysis was also conducted to predict attachment style using age, marital status (married vs. other), and work status (full-time vs. other) as predictors (see Table 25). The results failed to reveal significant predictors of secure attachment. Table 26 shows a summary of the four hypotheses along with the independent variable and dependent variables, test statistics and the decision about whether the hypothesis was supported.

Table 24

Summary of Simple Logistic Regression Analysis for Variables Predicting Attachment Style

	β	<i>S.E.</i>	<i>Wald</i>	<i>Odds Ratio</i>	<i>p</i>
Age	.026	.029	.785	1.026	.376
Married	.680	.435	2.450	1.974	.118
Works Full-Time	.051	.354	.021	1.053	.885

Table 25

Summary of Multiple Logistic Regression Analysis for Variables Predicting Attachment Style

	β	<i>S.E.</i>	<i>Wald</i>	<i>Odds Ratio</i>	<i>p</i>
Age	.031	.030	1.074	1.032	.300
Married	.823	.451	3.331	2.278	.068
Works Full-Time	.054	.361	.022	1.055	.881

Table 26

Summary of Variables, Test Statistics, and Decisions for Each Hypothesis

	Hypothesis	IV	DV	Statistic	Decision
71	#1 No significant difference in mother's perception of her child's independent functioning based on the mothers' attachment style.	PAQ Score and Secure vs. Insecure	MPCI Score and MPCI Category (High vs. Low)	Beta, Odds Ratio	Hypothesis was not rejected both for linear and logistic regression analyses.
	#2 No significant difference in mothers' perception of their children's independent functioning based on the mothers' educational level and socioeconomic status.	Maternal Education Level Income level	MPCI Score and MPCI Category (High vs. Low)	Beta, Odds Ratio	Hypothesis was not rejected. Overall model for education level on independence score was not supported although results were somewhat contradictory. Income level did not predict Independence score or category.
	#3 No significant difference in mothers' perception of their children's independent functioning based on the mothers' age, marital status, and work status.	Maternal Age Marital Status Work Status	MPCI Score and MPCI Category (High vs. Low)	Beta, Odds Ratio	Hypothesis was rejected. Overall model was significant. However, of the three variables, only age was a significant predictor.
	#4 No statistically significant difference in mothers' attachment style based on the mothers' age, marital status, and work status.	Maternal Age Marital Status Work Status	PAQ Score and Secure vs. Insecure	Beta, Odds Ratio	Neither the individual variables nor the overall model was a significant predictor. Hypothesis was not rejected.

CHAPTER V

DISCUSSION, CONCLUSIONS, LIMITATIONS, IMPLICATIONS, AND FUTURE RESEARCH

This chapter will discuss the findings of the study, the conclusions, limitations, implications and future research. The study uses quantitative methodology to examine relationships between parental attachment and parental perceptions of children's independence. Data is collected utilizing a Parent Attachment Questionnaire (PAQ) (Kenny, 1987), the Maternal Perception of Child's Independence Measure (MPCI) (Shulman, Kedem, Kaplan, Sever, & Braja, 1998), and Demographic Questionnaire. The study analyzes variables of attachment secure/insecure, and independence high vs. low. To guide the study four Hypotheses are used:

Hypothesis 1. There will be no statistically significant difference in mother's perception of her child's independent functioning (MPCI) based on the mothers' attachment style (PAQ).

Hypothesis 2. There will be no statistically significant difference in mothers' perception of their children's independent functioning (MPCI) based on the mothers' educational level and socioeconomic status.

Hypothesis 3. There will be no statistically significant difference in mothers' perception of their children's independent functioning (MPCI) based on the mothers' age, marital status, and working status.

Hypothesis 4. There will be no statistically significant difference in mothers' attachment style (PAQ) based on the mothers' age, marital status, and working status.

Quantitative data is analyzed using the Statistical Package for Social Research (SPSS) software program.

Discussion of Findings

Research regarding parent-child relationships has identified attachment security and positive developmental outcomes as a possible influence on preadolescent children's functioning (Schoppe-Sullivan et al., 2006). The literature review indicates that attachment theory focuses on the relationship between the mother-child dyad (Bowlby, 1982) and the influences that it has on development throughout the lifespan. The theory conceptualizes the behavioral transmission of children's attachment relationships with primary caregivers. Evidence suggests that relationships with primary caregivers influence the children's development of secure attachment (Haft & Slade, 1989). Attachment is relevant throughout the lifespan.

A primary purpose of this study is to examine mothers' attachment styles (secure/insecure) and the influence of the mother's approach to attachment on preadolescent children's independence functioning. A personal interest of the study concerned a personal belief that early attachment relationships with primary caregivers form social relationships whether healthy or unhealthy. The emotional bond that develops between the caregiver and the child is reflected in the child's social behavior (Marvin, Greenberg, & Mossler, 1976). The child's social world is structured based upon

a network of internal working models (Bowlby, 1988) based on the child's expectations of their caregivers. The internal working model relative to attachment a person maintains his implications for the coping strategies and decision-making processes of that individual (Crowell & Feldman, 1988).

Children's decision-making or independence functioning is learned through parenting relationships (Klaus, Kennell, & Klaus, 1995). Research has described adult attachment styles as having a significant influence on a person's parenting (Hazen & Shaver, 1987). Adult attachment styles are structured from a network of internal mental representations that help shape an individual's on behavior toward the attachment figure. The parenting relationship facet is attributed to intergenerational transmission (van Ijzendoorn, 1995). As presented in the findings, this research study indicates a mother's relationship with her own mother patterns her relationship with her child.

As elaborated in the data findings, this research study examines the predictive effects of maternal attachment style, mother's educational level, age, marital status and working status on secure/insecure attachment and levels (low vs. high) of perceived independence of the child. This chapter summarizes the results of this study. The study is conducted via an online survey with 161 participants. Nearly all of the mothers are natural/biological parents. Very few are step, foster, adoptive, grandparents, or other types of parents. Most participants are married and work full-time. Quantitative methodology is used to collect data and address the researchers' hypotheses.

Hypotheses are examined utilizing the Parent Attachment Questionnaire (PAQ) (Kenny, 1987), the Maternal Perception of Child's Independence Measure (MPCI) (Shulman, Kedem, Kaplan, Sever, & Braja, 1998), and Demographic Questionnaire. Quantitative data is analyzed using the Statistical Package for Social Research (SPSS) software program. Pearson Product Moment correlations, independent t-test, and ANOVAs are used to examine the null hypotheses.

It is hypothesized that: (a) the maternal attachment style: secure/insecure, as measured by the Parental Attachment Style Questionnaire, would be no significant different from the mothers' level of perceived independence of the child; (b) the maternal variables of education and socioeconomic status would have no significant influence on the mother's level of perceived independence of the child; (c) mothers' age, marital status, and working status will have no significant influence on the level of perceived independence of the child; and (d) age, marital status, and working status will not have significant influence on the reported maternal attachment style.

Hypothesis One

There will be no statistically significant difference in mother's perception of her child's independent functioning based on the mothers' attachment style.

The statistical findings for Hypothesis 1 found multiple statically significant differences between attachment (insecure vs. secure) and independence (low vs. high). Greater attachment scores predict significantly higher independence scores. The secure attachment category also predicts significantly higher independence scores.

Independence functioning of children is established when the child's closeness to the mother is balanced (Ainsworth, Blehar, Waters, & Wall, 1978). The mother respects her child's advancement toward autonomy and internalizes him or her to be independent (Shulman, Kedem, Kaplan, Sever, & Braja, 1998). The secure attachment category, as shown by the mother predicts high independence scores on the part of the child. Higher levels of attachment predict greater odds of high independence. Secure attachment predicts greater odds of high independence. The findings are not surprising according to research studies that identify autonomous mothers more often having children who are securely attached (Lamb, Thompson, Gardner, & Charnov, 1985). An autonomous parent indicates a parent-child trusting relationship (Bowlby, 1982). Attachment relationships form as the caregiver satisfies the children's needs related to trust and security. A sense of basic trust helps children grow psychologically (Erikson, 1968). As the child matures toward middle childhood they develop a sense of how to work with others as well as experience decision-making challenges (Erikson, 1968).

Secure attachment is seen as resulting from responsive care giving in parent-child relationships (Bretherton, 1985). Responsiveness helps the child to build confidence, which helps to develop secure strategies when in need, or distress.

Hypothesis Two

There will be a statistically significant difference in mothers' perception of their children's independent functioning based on the mothers' educational level and socioeconomic status.

The findings for Hypothesis 2 found there is a significant relationship between the mothers Education Level and Income as it relates to her perception of her child's independent level (low vs. high). Researchers have examined the influences of social and economic resources for understanding parent-child relationships (Cox & Paley, 2003). The family systems theory offers another perspective of examining social and economic resources as it relates to parent-child relationships. According to this theory there are measurable family subsystems. Subsystems are mutual influences within the family that may affect the whole family, such as marital relationships, parent-child relationships, and economic resources (von Bertalanffy, 1968). Mothers who have higher levels of education tended to have higher incomes. Household income was not a significant predictor of Independence Score. The results reveal that having an associate's degree predicts higher independence scores. Having some college or less or a master's degree, on the other hand, fails to predict independence scores. The findings indicate that there is no significant difference with respect to mother's educational level and socioeconomic status (SES).

These findings offer another perspective on healthy attachment relationships (Becker-Weidman, 2004). Research on children usually approach relationships between education and income from a deficit perspective (Cox & Paley, 2003). It was hypothesized that there would be a significant difference in a mothers' perspective of her child's independent level based on educational level and socioeconomic status. These factors are shown to have positive influences.

Hypothesis Three

There will be no statistically significant difference in mothers' perception of their children's independent functioning based on the mothers' age, marital status, and working status.

The findings for Hypothesis 3 revealed a statistically significant difference in mother's age, marital status, and working status in relation to perceived independence of the child (low vs. high). The results reveal that older aged mothers are related to lower independence scores on the part of their children. Marital status and working full time are not significant predictors of independence. The results reveal that older ages predict lower odds of high independence. Being married and working full-time are not significant predictors of high independence. The analysis of variance shows there is no significant difference between mothers that completed the Parent Attachment questionnaire (PAQ, Kenny, 1987) and the Maternal Perception of Child's Independence Measure (Shulman, Kedem, Kaplan, Sever, & Braja, 1998) (see Appendices A & B).

Hypothesis three is rejected. The overall model is significant. However, of the three variables, only age is a significant predictor. This result of the analysis for Hypothesis 3 reinforces the extant research that suggests that attachment styles formed in early years affects adult attachment styles and has an impact on parenting. Adult attachment styles are found to closely mirror the relationship the adult has experienced with their own parent. When the child's closeness to the mother is balanced (Ainsworth, Blehar, Waters, & Wall, 1978) during early years, more autonomous behavior is observed in later development.

Hypothesis Four

There will be no statistically significant difference in mothers' attachment style (insecure vs. secure) based on the mothers' age, marital status, and working status. The results reveal that mothers who are married are more likely to exhibit a secure (greater) attachment score. Age is not shown to be a significant predictor of a mother's style of attachment. The family systems theory (von Bertalanffy, 1968) posits subsystems within the family such as poverty, marital relationships, occupations and education. According to this perspective, these family subsystems are related to parent-child relationships in a reciprocal fashion (Cox & Paley, 2003). Behaviors of one component can disturb another component. For example marital relationships can have a negative or positive effect on parent-child relationships.

Demographic Relationships

A total of 161 natural, biological, stepmother, foster mother, adoptive mother, and grandmother participated in this study. One hundred and thirty-four of the participants are married, 12 divorced, 7 separated, 6 never married and 1 widowed. One hundred and seventeen of the participants work full-time, 11 part-time, 6 work from home, and 25 are stay home mothers. Therefore, for the purpose of this study there are two groups collapsed for comparison. Among all of the participants they averaged between one to four children ages 7 to 11 years.

Conclusions

As described in Chapter II early parent-child attachment patterns influence later development (Bowlby, 1980). The parent-child relationship experienced in the first months of life seem to be an important influence on the individual's later development. This finding seems very much in accordance with family systems theory (Bowen, 1988) as well as attachment theory (Bowlby, 1982). The basic assumption of the family systems theory is that family members affect each other in some fashion or the other whether it involves relationships, occupations, income or education (Cox & Paley, 2003).

The results of the present study suggest that the attachment experiences had in early life have implications for not only parents but also the process of parenting between those individuals and their children.

Based on the findings of this study, the following conclusions are drawn:

1. Mothers tend to allow their children with more autonomy as they mature.
2. Mothers whose scores indicate a secure form of attachment are more likely to have children with higher confidence when it comes to making independent decisions.
3. Mothers scoring in the "Secure" category of attachment are more likely to have children exhibiting balanced social behavior.
4. Mothers with some college education are more likely to grant their children with more autonomy as they mature.

5. Age seems to influence parental decisions about how much autonomy a child should be granted with younger mothers more likely to support higher levels of exhibited independence on the part of their children.

Limitations

The generalizability of the results of this study may be limited in the following ways:

1. Criteria for data selection. The study research is limited to mothers' who had Internet access and volunteered their information.
2. The study research is limited to mothers with children ages 7 to 11 years.
3. For unknown reasons some participants started the survey and did not complete it. Unidentifiable factors may have discouraged participants from completing the questionnaires.
4. Exclusion of fathers. A father has long-term primary care responsibilities for a child.
5. The use of nonprobability convenience sample limited the degree to which the findings can be generalized to the entire population of mothers with children 7 to 11 years old.
6. Additional limitations of the data are convenience and snowball sampling.

Implications

The present study has provided an investigation into whether parental attachment styles and maternal perceptions influence the dependent variables of the study.

Implications from this study may provide additional support to varied professionals, such as family counselors, the early childhood arena, and to parent-child relationship studies.

1. The mission of family counselors is to add a different perspective of family functioning. Evidence from this study may provide insight toward subconscious parental influences.
2. A focus of early childhood professionals is to promote individual independence. The primary caregiver largely shapes independence. Evidence from this study may provide insight toward socialization behavior.
3. Parent-child relationships are studied in many facets. Evidence from this study may help to improve parent-child relationships as it relates to parental power.

Future Research

Future research recommendations have emerged from the present research study that might guide other interesting investigations of attachment relationships. The attachment theory has evolved around the mother-child bond for decades. There is a need to venture away from classical claims of the attachment theory and include other primary caregivers. Areas to be considered are attachment to non-traditional parents such as grandparents, foster parents, stepparents, and adoptive parents. The quality of attachment to fathers is under represented in the body of research. Grandparent-headed households have increased and are receiving more and more attention. The demographic results of

the present study identified a small percentage of the non-traditional parent represented as primary caregivers. The demographic results also represented a substantial percentage of fathers present in the home

Additionally, more fathers are the primary caregivers. Because of this increase of fathers contributing to healthy development of their child's life more investigation on attachment and fathers is needed. A number of researchers have determined that active fathers have children who score high on test, problem solving, and handle social situations well. Combining the current study with a similar study with fathers as the main participants would offer further opportunity to study influence of parental attachment types. Studying this from a longitudinal perspective would allow researchers to study changes as they occur over a period of time. This will lend a different perspective on fathers as the primary caregivers.

Lastly, the current study recommends further research on adult perceptions of independence and its relation to gender of children. Specifically, is gender a dominant factor of granting autonomy?

Summary

This chapter discusses the findings and implications of the study. Four Hypotheses examines maternal attachment style (insecure vs. secure) and levels of independence of the child (low vs. high). Findings suggest that greater attachment scores predict higher independence scores. Secure attachment category also predicts higher independence scores. There are no significant findings with respect to socioeconomic

status (SES), marital status, education, mothers' age, and working status. Limitations to the study include criteria of data selection, unknown reasons some participants started the survey and did not complete it, and exclusion of fathers. Future research suggests offering positive findings about father-child involvement to the body of attachment research.

REFERENCES

- Adam, E. K., Gunnar, M. R., & Akiko, T. (2004). Adult attachment, parent emotion, and observed parenting behavior: Mediator and moderator models. *Child Development, 75*, 110-122.
- Ainsworth, M. D. S. (1969). Object relations, dependency, and attachment: A theoretical review of the infant-mother relationship. *Child Development, 40*, 969-1025.
- Ainsworth, M. D. S. (1989). Attachment beyond infancy. *American Psychologist, 44*, 709-716.
- Ainsworth, M. D. S., & Bell, S. M. V. (1970). Attachment exploration and separation: Illustrated by the behavior of one-year-olds in a strange situation. *Child Development, 41*, 49-67.
- Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Walls, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Hillsdale, NJ: Lawrence Erlbaum.
- Ainsworth, M. D. S., & Bowlby, J. (1991). An ethological approach to personality development. *American Psychologist, 46*, 333-341.
- Allen, J. P., MaElhaney, K. B., Land, D. J., Kuperminc, G. P., Moore, C. W., O'Beirne-Kelly, H et al. (2003). A secure base in adolescence: Markers of attachment security in the mother-adolescent relationship. *Child Development, 74*. 292-307.

- Armsden, G. C., McCauley, E., Greenberg, M. T., Burke, P. M., & Mitchell, J. R. (1990). Parent and peer attachment in early adolescent depression. *Journal of Abnormal Child Psychology*, 18, 683-697.
- Babbie, E. (1992). *The practice of social research* (6th ed.). Belmont, CA: Wadsworth.
- Babbie, E. (2004). *The practice of social research* (10th ed.). Belmont, CA: Wadsworth.
- Bandura, A. (1977). Social learning theory. Englewood Cliffs, NJ: Prentice-Hall.
- Bartholomew, K. (1990). Avoidance of intimacy: An attachment perspective. *Journal of Social and Personal Relationships*, 7, 147-178.
- Becker-Weidman, A. (2008). Treatment for children with reactive attachment disorder: Dyadic development psychotherapy. *Child & Adolescent Health*, 13, 52-53.
- Berger, K. S. (2001). *The developing person through the life span*. New York: Worth Publishers.
- Berlin, L. J., & Cassidy, J., (2001). Enhancing early childhood relationships: Implications of adult attachment research. *Infant Young Children*, 14, 64-76.
- Blanchard, M., & Main, M. (1979). Avoidance of the attachment figure and social-emotional adjustment in day-care infants. *Developmental Psychology*, 15, 445-446.
- Bogaerts, S., Vanheule, S., Declercq, F. (2005). Recalled parental bonding, adult attachment style, and personality disorders in child molesters. A comparative study. *Journal of Forensic Psychiatry & Psychology*, 16, 445-459.

- Bohlin, G., Hagekull, B., & Rydell, A.M. (2000). Attachment and social functioning: A longitudinal study from infancy to middle childhood. *Social Development*, 9, 24 – 39.
- Bowlby, J. (1969). *Attachment and loss*: Vol. 1. *Attachment*. (2nd rev. ed., 1982). New York: Basic
- Bowlby, J. (1980). *Attachment and loss*. Vol. 3. *Loss*. New York: Basic Books.
- Bowlby, J. (1982). *Attachment and loss*: Vol.2. *Attachment*. New York: Basic Books.
- Bowlby, J. (1988). A secure base: Parent-child attachment and healthy human development. New York: Basic Books.
- Bowen, M. (1988). Family therapy in clinical practice. New York: Jason Aronson.
- Bradley, R. H., & Corwyn, R. F. (2002). Socioeconomic status and child development. *Annual Review of Psychology*, 53, 371-399.
- Bretherton, I. (1985). Attachment theory. Retrospect and prospect. In I. Bretherton & E. Waters (Eds.), Growing points of attachment theory and research. *Monographs of the Society for Research in Child Development*, 50, 3-35.
- Bulcroft, R. A., Carmody, D. C., & Bulcroft, K. A. (1996). Patterns of parental independence giving to adolescents: Variations by race, age, and gender of child. *Journal of Marriage and the Family*, 58, 886-883.
- Carranza, L. V., & Kilmann, P. R. (2000). Links between perceived parent characteristics and attachment variables for young women from intact families. *Adolescence*, 35, 295-312.

- Carton, J., & Nowicki, S. (1994). Antecedents of individual differences in locus of control of reinforcement: A critical review. *Genetic, Social, and General Psychology Monographs*, 120, 31-81.
- Cohen, J., & Cohen, P. (1975). *Applied multiple regression/correlation analysis for the behavioral sciences*. Oxford, England: Lawrence Erlbaum.
- Cohen, J., & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioral sciences*. Oxford, England: Lawrence Erlbaum.
- Collins, W. A., Schoenleber, K., & Wetsby, S. (1988). The behavior expectancy inventory. Minneapolis: University of Minnesota, Institute of Child Development.
- Couper, Mike (2001). Web surveys: A review of issues and approaches. *Public Opinion Quarterly*, 64, 464 - 494.
- Cox, M. J., & Paley, B. (2003). Understanding families as systems. *Current Directions in Psychological Science*, 12, 193-196.
- Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousand Oaks, California. Sage Publications.
- Cristina, M. & de Minzi, R. (2006). Loneliness and depression in middle and late childhood: The relationship to attachment and parental styles. *The Journal of Genetic Psychology*, 167, 189-210.

- Crowell, J. A. & Feldman, S. S. (1988). Mother's internal models of relationships and children's behavioral and developmental status: A study of mother-child interactions. *Child Development*, 59, 1273-1285.
- DeMann, A., Leduc, C., & Labreche-Gauthier, L. (1992). Parental control in child rearing and multidimensional locus of control. *Psychological Reports*, 70, 320-322.
- Erikson, E. H. (1963). *Childhood and society* (2nd ed.) New York: Norton.
- Erikson, E. H. (1968). *Identity: Youth and crisis*. New York: Norton.
- Fearon, R., M. & Belsky, J. (2004). Attachment and attention: Protection in relation to gender and cumulative social-contextual adversity. *ChildDevelopment*, 75(6), 1677-1693.
- Feldman, S. S., & Rosenthal, D. A. (1990). The acculturation of autonomy expectations in Chinese high schoolers residing in two Western nations. *International Journal of Psychology*, 25, 259-281.
- Feldman, R. (2003). Infant-mother and infant-father synchrony: The coregulation of positive arousal. *Infant Mental Health Journal*, 24, 1-23.
- Feldman, R. S. (2005). *Development across the lifespan*. Upper Saddle River, NJ: Pearson Education.
- Fraley, R. C. (2002). Attachment stability from infancy to adulthood: Meta-analysis and dynamic modeling of developmental mechanisms. *Personality and Social Psychology Review*, 6, 123-151.

- George, C., Kaplan, N., & Main, M. (1985). Adult attachment interview. Unpublished Manuscript, University of California, Berkeley.
- Graham, C. A., & Easterbrooks, M. A. (2000). School-age Children's vulnerability to depressive symptomatology: The role of attachment security, maternal depressive symptomatology, and economic risk. *Developmental and Psychopathology*, 12, 201-213.
- Greenberg, M. T., Siegel, J. M., & Leitch, C. J. (1983). The nature and importance of attachment relationships to parents and peers during adolescence. *Journal of Youth and Adolescence*, 12, 373-386.
- Haft, W. L. & Slade, A. (1989). Affect attunement and maternal attachment: A pilot study. *Infant Mental Health Journal*, 10, 157-172.
- Haigler, V. F., Day, H. D., & Marshall, D. D. (1995). Parental attachment and gender-role identity. *Sex Roles*, 33, 203-220.
- Hazan, C., & Shaver, P. R. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52, 511-524.
- Hinde, R. A. (1989). Ethological and relationship approaches. In R. Vasta (Ed.), *Annals of child development* (Vol. 6, pp. 251-285). Greenwich, CT: JAI Press.
- Kagan, J. (1984). *The nature of the child*. New York: Basic Books.
- Kenny, M. E. (1987). *Parental attachment questionnaire*. Chestnut Hill, Massachusetts.
- Kerr, M. E., & Bowen, M. (1988). *Family evaluation*. New York: Norton.
- Klaus, M. H., Kennell, J. H., & Klaus, P. H. (1995). *Bonding: Building the foundation*

- of secure attachment and independence*. Canada: Perseus Publishing.
- Kochanska, G. (1993). Toward a synthesis of parental socialization and child temperament in early development of conscience. *Child Development*, 64, 325-347.
- Koon, J. O. (1997). Attachment to parents and peers in late adolescence and their relationships with self-image. *Adolescence*, 32, 201-210.
- Krampen, G. (1989). Perceived childrearing practices and the development of locus of control in adolescence. *International Journal of Behavioral Development*, 12, 177-193.
- Laible, D., & Thompson, R. A. (1998). Attachment and emotional understanding in preschool children. *Developmental Psychology*, 34, 1038-1045.
- Lamb, M. E., & Lewis, C. (2004). *The role and significance of father-child relationships in two-parent families*. In M. E. Lamb (Ed.), *The role of father in child development* (4th ed., pp. 272-306). New York: John Wiley
- Lamb, M. E., Thompson, R. A., Gardner, W., & Charnov, E. L. (1985). *Infant-mother attachment: The origins and developmental significance of individual differences in strange situation behavior*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Larson, R. W. (1990). The solitary side of life. *Developmental Review*, 10, 155-183.
- Lorenz, K. Z. (1965). *Evolution and the modification of behavior*. Chicago: University of Chicago Press.

- Main, M., & Weston, D. R. (1981). The quality of the toddler's relationship to mother and to father: Related to conflict behavior and the readiness to establish new relationships. *Child Development*, 51, 932-940.
- Main, M., & Goldwyn, R. (1985/1991). Adult attachment scoring and classification system. Unpublished manuscript, University of California, Berkeley.
- Main, M. & Solomon, J. (1986). *Discovery of an insecure-disorganized/disoriented attachment pattern: Procedures, findings and implications for the classification of behavior*. In T. B. Brazelton & M. Yogman (Eds.) *Affective development in infancy*, (pp. 95-124.) Norwood, NJ: Ablex.
- Main, M., & Cassidy, J. (1988). Categories of response to reunion with the parent at age 6: Predictable from infant attachment classifications and stable over a 1-month period. *Developmental Psychology*, 24, 415-426.
- Marvin, R. S., Greenberg, M. T., & Mossler, D. G. (1976). The early development of conceptual perspective-taking: Distinguishing among multiple perspectives. *Child Development*, 47, 411-514.
- Masten, A. S. (2001). Ordinary magic: Resilience process in development. *American Psychologist*, 56, 227-238.
- McMahon, C. A., Barnett, B., Kowalenko, N. M., Tennant, C. C. (2006). Maternal attachment state of mind moderates the impact of postnatal depression on infant attachment. *Journal & Child Psychology & Psychiatry*, 47, 660-669.

- Morton, T. L., & Mann, B. J. (1998). The relationship between parental controlling behavior and perceptions of control of preadolescent children and adolescents. *The Journal of Genetic Psychology, 159*, 477-491.
- Muris, P., Meesters, C., & van den Berg, S. (2003). Internalizing and externalizing problems as correlates of self-reported attachment style and perceived parental rearing in normal adolescents. *Journal of Child and Family Studies, 12*, 171-183.
- Neal & Frick-Horbury (2001). The effects of parenting styles and childhood attachment patterns on intimate relationships. *Journal of Instructional Psychology, 28*, 178 – 183.
- Piaget, J. (1969). The child's conception of time. (A. J. Pomerans, trans.). London Routledge.
- Schoppe-Sullivan, S. J., Diener, M. L., Mangelsdorf, S. C., Brown, G. L. McHale, J. L., & Frosch, C. A. (2006). Attachment and sensitivity in family context: The roles of parent and infant gender. *Infant and Child Development, 15*, 367-385.
- Shulman, S., Kedem, P., Kaplan, K. J., Sever, I., & Braja, M. (1998). Latchkey children: Potential sources of support. *Journal of Community Psychology, 26*, 185-197.
- Sroufe, L. A., Fox, N. E., Pancake, V. R. (1983). Attachment and dependency in development perspective. *Child Development, 54*, 1615-1627.

- van Dam, M., & van Ijzendoorn, M., H. (2001). Measuring attachment security: Concurrent and predictive validity of the parental attachment q-set. *Journal of Genetic Psychology, 149*, 447-457.
- van Ijzendoorn, M. H. (1995). Adult attachment representations, parental responsiveness, and infant attachment: A meta-analysis on the predictive validity of the adult attachment interview. *Psychological Bulletin, 117*, 411-415.
- von Bertalanffy, L. (1968). General systems theory: Foundations, development, applications. New York: George Braziller.

APPENDIX A
PARENT ATTACHMENT QUESTIONNIARE (PAQ)

“The return of your completed questionnaire constitutes your informed consent to act as a participant in this research.”

Parent Attachment Questionnaire

RELATIONSHIP: _____

The following statements describe parental relationships and the kinds of feelings and experiences frequently reported by adolescents and their parents.

Please provide a rating for each item to describe the relationship between your child and you. Respond to each item by filling in the number on a scale of 1 to 5 that best describes that relationship.

IN GENERAL AS A PARENT, I...

__1. Try to control my child's life.

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

__2. Let my child try out new things and learn on his/her own.

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

__3. Respect my child's privacy.

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

__4. Respect my child's ideas and feelings.

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

__5. Understand my child's problems.

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

__6. Am sometimes too busy to give my child as much attention as I want to.

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

__7. Have trust and confidence in my child to make his/her own decisions.

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

__8. Am willing to listen to my child if he/she is upset.

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

__9. Believe that my child can talk to me about anything.

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

WHEN MY CHILD HAS A SERIOUS PROBLEM OR AN IMPORTANT DECISION
TO MAKE...

__10. S (he) looks to her parents for support, encouragement, and/or guidance.

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

__11. S (he) expects that his/her parents will know what he/she should do.

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

__12. S (he) will contact parents if his/her friends can't help.

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

FOLLOWING TIME SPENT TOGETHER, I LEAVE MY CHILD...

__13. With warm and positive feelings about the visit.

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

__14. Feeling let down and disappointed about the visit.

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

DURING RECENT VISITS OR TIME SPENT TOGETHER...

__15. I looked forward to seeing my child.

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

__16. My child became angry with me.

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

__17. We got on each other's nerves.

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

__18. I felt relaxed and comfortable with my child.

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

__19. We argued with each other.

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

__20. I felt guilty and anxious.

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

APPENDIX B

MATERNAL PERCEPTION OF CHILD'S INDEPENDENCE MEASURE

“The return of your completed questionnaire constitutes your informed consent to act as a participant in this research.”

Maternal Perception of Child’s Independence Measure

RELATIONSHIP: _____

Maternal Perception of Child’s Independence Measure consists of 12 items designed to assess “maternal perception of the child’s behaviors that are commonly thought to be characteristics of young children and reflects issues of independent functioning.

Rate your perception of your child’s independence: 1 through 5

Hardly at All	Somewhat	Very Much	Not too Much	Extremely
1	2	3	4	5

Perceived competence

1. Is your child competent in making decisions about matters important to him or her?

Hardly at All	Somewhat	Very Much	Not too Much	Extremely
1	2	3	4	5

Self-Perception

2. Social acceptance

Hardly at All	Somewhat	Very Much	Not too Much	Extremely
1	2	3	4	5

3. Behavioral conduct

Hardly at All	Somewhat	Very Much	Not too Much	Extremely
1	2	3	4	5

4. Global self-worth

Hardly at All	Somewhat	Very Much	Not too Much	Extremely
1	2	3	4	5

5. Levels of fear

Hardly at All	Somewhat	Very Much	Not too Much	Extremely
1	2	3	4	5

6. Fear of physical injury

Hardly at All	Somewhat	Very Much	Not too Much	Extremely
1	2	3	4	5

7. Fear of the unknown

Hardly at All	Somewhat	Very Much	Not too Much	Extremely
1	2	3	4	5

8. Fear of being hassled

Hardly at All	Somewhat	Very Much	Not too Much	Extremely
1	2	3	4	5

9. Fear of evaluation

Hardly at All	Somewhat	Very Much	Not too Much	Extremely
1	2	3	4	5

10. Fear of failure and punishment

Hardly at All	Somewhat	Very Much	Not too Much	Extremely
1	2	3	4	5

Anxiety Level of Fears

11. Fear of the unknown

Hardly at All	Somewhat	Very Much	Not too Much	Extremely
1	2	3	4	5

12. Fear of failure

Hardly at All	Somewhat	Very Much	Not too Much	Extremely
1	2	3	4	5

APPENDIX C
DEMOGRAPHIC FORM

“The return of your completed questionnaire constitutes your informed consent to act as a participant in this research.”

DEMOGRAPHIC FORM

Parent/Guardian Information:

Age of mother: _____

Relation to child:

___ Natural ___ Step ___ Foster ___ Adoptive ___ Grandparent ___ Other

Marital Status of parent(s) with whom the child lives:

___ Married ___ Divorced ___ Separated ___ Never Married ___ Widowed ___ Other

Working Status:

Full time ___ Part time ___ Work from home ___ Stay home mom ___ Other ___

Family Annual Income:

\$20,000 and above ___ \$30,000 and above ___ Over \$40,000 ___

What is the highest education level you have completed?

High school ___ GE ___ Some college ___ Associates degree ___ Masters degree ___ Above ___

Ethnicity:

___ African American ___ Asian/Pacific Islander ___ Caucasian ___ Hispanic ___ other

Child Information:

Age ___ Gender ___ Grade ___ Number of Children ___

Race/Ethnicity:

___ African American ___ Asian/Pacific Islander ___ Caucasian ___ Hispanic ___ other

APPENDIX D
IN PERSON RECRUITMENT LETTER

Letter to Potential Volunteer Participants

Dear Volunteer Participants,

I am Stephanie G. Scroggins, a doctoral student in the College of Professional Education at Texas Woman's University and am conducting a research project on the relationship between parental attachment styles and maternal perceptions of preadolescent children's independence functioning.

This research project will evaluate parent's relationships with their children and parent attachment styles related to parent-child interactions through the use of online questionnaires. The online survey will involve the completion of 1 demographic form; 1 Parent Attachment Questionnaire with 20 questions on a rating scale of 1 to 5, and 1 Maternal Perception of Child's Independence Measure with 12 questions on a rating scale of 1 to 5.

As a parent in the profession of child development I hear from other parents that are concerned with their relationships with their children. Mothers ask, "How can I allow my child to grow-up and make sound decisions?" Because of the parent-child relationship concern I am looking for mothers with children ages 7 to 11 years old to help answer some important questions.

The researcher is specifically seeking participants with children ages seven to eleven years old. If you agree to participate, I will give you a website address for you to complete the questionnaires about you and your child's relationship. The information will be forwarded to your email address that you provide for the researcher. The questionnaires will take approximately 30 minutes to complete.

Upon receiving permission from the Texas Woman's University Institutional Review Board (IRB) to conduct a research project a questionnaire will be administered via an online survey. Your participation is completely voluntary. You may withdraw from the project at any time and can request to have your information destroyed. The return of your completed questionnaire constitutes your informed consent to act as a participant in this research.

Upon entering the website you will find a description of the study, a participant information letter, and the questionnaire instruments. As a thank you for participating each participant will be entered in a random drawing for a \$100 gift card. All information that you provide will be confidential to the full extent of the law. There is a potential risk of loss of confidentiality in all email and Internet transactions. Identifying information (name, address, and email address) will be used solely for the purpose of awarding the incentive to a participant. These questionnaires will be destroyed after

data have been evaluated. Results may be published for further research, but your identity will not be revealed in any way.

As a part of this project, I would ask your help in these ways:

Voluntarily participate in the "Parent Questionnaire Project."

Distribute my letter of invitation to all mothers with children whose age range 7 to 11 years old.

Upon completion of the online survey you will be provided with information of how to obtain the results of this study if you wish. Thank you in advance for your consideration of this important project. I would appreciate you mailing your email contact information in the stamped envelope provided so that I may inform you when the Texas Woman's Institutional Review Board (IRB) has approved the study.

You have been asked to voluntarily participate in the "Parent Questionnaire Project." This project is sponsored by The Texas Woman's University under the direction of Ron Fannin, Ph.D. and Stephanie G. Scroggins, M. A. If you have any questions about the research study you may contact Ron Fannin, Ph.D. (940-898-2682) or Stephanie Scroggins, M.A. (972-492-8928). If you have questions about your rights as a research participant, you may contact the Texas Woman's University Office of Research and Sponsored Programs at 940-898-3378 or via e-mail at IRB@twu.edu.

With warm regard,

Stephanie G. Scroggins, M.A.

stscr@twu.edu

Research Investigator

APPENDIX E
EMAIL SCRIPT

Email Script to Potential Participants

Date _____

Dear _____ (Individual Name):

I am Stephanie Scroggins, a doctoral student in the College of Professional Education at Texas Woman's University. As a part of my doctoral studies, I am conducting a research project on the relationship between parental attachment styles and maternal perceptions of preadolescent children's independence functioning. I would like to enlist your help in my project, which involves about 30 minutes of your time completing an online survey. The survey consist of 1 demographic form, and 1 Parent Attachment Questionnaire with 20 questions on a rating scale of 1 to 5, and 1 Maternal Perception of Child's Independence Measure with 11 questions on a rating scale of 1 to 5.

As a parent in the profession of child development I hear from other parents that are concerned with their relationships with their children. Mothers ask, "How can I allow my child to grow-up and make sound decisions?" Because of the parent-child relationship concern I am looking for mothers with children ages 7 to 11 years old to help answer some important questions.

Upon receiving permission from the Texas Woman's University Institutional Review Board (IRB) to conduct a research project a questionnaire will be administered via an online survey. Your participation is completely voluntary. If you agree to participate, I will give you a website address for you to complete the questionnaires about you and your child's relationship. You may withdraw from the project at any time and can request to have your information destroyed. The return of your completed questionnaire constitutes your informed consent to act as a participant in this research.

Upon entering the website you will find a description of the study, a participant information letter, and the questionnaire instruments. As a thank you for participating each participant will be entered in a random drawing for a \$100 gift card. All information that you provide will be confidential to the full extent of the law. There is a potential risk of loss of confidentiality in all email and Internet transactions. Identifying information (name, address, and email address) will be used solely for the purpose of awarding the incentive to a participant. These questionnaires will be destroyed after data have been evaluated. Results may be published for further research, but your identity will not be revealed in any way.

As a part of this project, I would ask your help in these ways:
Voluntarily participate in the "Parent Questionnaire Project."

Distribute my letter of invitation to all mothers with children whose age range 7 to 11 years old.

Upon completion of the online survey you will be provided with information of how to obtain the results of this study if you wish. Thank you in advance for your consideration of this important project. I would appreciate an email reply.

You have been asked to voluntarily participate in the "Parent Questionnaire Project." This project is sponsored by The Texas Woman's University under the direction of Ron Fannin, Ph.D. and Stephanie G. Scroggins, M. A. If you have any questions about the research study you may contact Ron Fannin, Ph.D. (940-898-2682) or Stephanie Scroggins, M.A. (972-492-8928). If you have questions about your rights as a research participant, you may contact the Texas Woman's University Office of Research and Sponsored Programs at 940-898-3378 or via e-mail at IRB@twu.edu.

With warm regard,

Stephanie G. Scroggins, M.A.
stscr@twu.edu
Research Investigator

APPENDIX F
CONSENT TO PARTICIPATE

TEXAS WOMAN'S UNIVERSITY
CONSENT TO PARTICIPATE IN RESEARCH

Title: The Relationship Between Parental Attachment Styles And Maternal Perceptions of Preadolescent Children's Independence Functioning: A Quantitative Approach

Investigator: Stephanie G. Scroggins, M.A.
Advisor: Ron Fannin, Ph.D.

This letter requests your participation in a "Parent Questionnaire Research Project." This project is sponsored by The Texas Woman's University under the direction of Ron Fannin, Ph.D. and Stephanie G. Scroggins, M. A.

This research project will evaluate parent's relationships with their children and parent attachment styles related to parent-child interactions through the use of online questionnaires. The online survey will involve the completion of 1 demographic form; 1 Parent Attachment Questionnaire with 20 questions on a rating scale of 1 to 5, and 1 Maternal Perception of Child's Independence Measure with 12 questions on a rating scale of 1 to 5.

The researcher is specifically seeking participants with children ages seven to eleven years old. If you agree to participate, I will give you a website address for you to complete the questionnaires about you and your child's relationship. The information will be forwarded to your email address on your consent form. The questionnaires will take approximately 30 minutes to complete.

Upon receiving permission from the Texas Woman's University Institutional Review Board (IRB) to conduct a research project a questionnaire will be administered via an online survey. Your participation is completely voluntary. You may withdraw from the project at any time and can request to have your information destroyed. The return of your completed questionnaire constitutes your informed consent to act as a participant in this research.

Upon entering the website you will find a description of the study, a participant information letter, and the questionnaire instruments. As a thank you for participating each participant will be entered in a random drawing for a \$100 gift card. All information that you provide will be confidential to the full extent of the law. There is a potential risk of loss of confidentiality in all email and Internet transactions. Identifying information (name, address, and email address) will be used solely for the purpose of awarding the incentive to a participant. These questionnaires will be destroyed after

data have been evaluated. Results may be published for further research, but your identity will not be revealed in any way.

Upon completion of the online survey you will be provided with information of how to obtain the results of this study if you wish. Thank you in advance for your consideration of this important project. I would appreciate you mailing your signed consent in the stamped envelope provided.

You have been asked to voluntarily participate in the "Parent Questionnaire Project." This project is sponsored by The Texas Woman's University under the direction of Ron Fannin, Ph.D. and Stephanie G. Scroggins, M. A. If you have any questions about the research study you may contact Ron Fannin, Ph.D. (940-898-2682) or Stephanie Scroggins, M.A. (972-492-8928). If you have questions about your rights as a research participant, you may contact the Texas Woman's University Office of Research and Sponsored Programs at 940-898-3378 or via e-mail at IRB@twu.edu.

My signature below indicates that I have read and understand this consent form and freely consent to participate. I have also received/printed a copy of this form for my records.

Signature

Date

Print your full name

Email address

Upon completion of the online survey you will be provided with information of how to obtain the results of this study if you wish. Thank you in advance for your consideration of this important project.

APPENDIX G

PERMISSION LETTERS

BOSTON COLLEGE

CHESTNUT HILL, MASSACHUSETTS 02167

School of Education

DEPARTMENT OF COUNSELING, DEVELOPMENTAL
PSYCHOLOGY, AND RESEARCH METHODS
Campion 307
(617)552-4030
Fax (617)552-8419

Dear Colleague:

You have my permission to reproduce and use the Parental Attachment Questionnaire for research purposes. Please send me a copy of your findings to include in the compendium of studies using the PAQ.

Sincerely,

Maureen Kenny, Ph.D.
Associate Professor
Department of Counseling, Developmental
Psychology and Research Methods
Boston College

There is a short form of the PAQ for parent report. It assesses security of attachment along a continuum, rather than along a typology. It has been used with parents of adolescents and young adults. Attached is a copy for you to see.
Dr. Kenny

| On Thu, 15 Mar 2007 08:23:19 -0500
| "Stephanie Scroggins" <stscr@mail.twu.edu> wrote:
| Dear Dr. Kenny,
| My name is Stephanie Scroggins and I am a doctoral student at Texas Woman's University in Denton, Texas. My advising professor is Dr. Ron Fannin (Child Development). I am currently working on a proposed study with the variables of parental attachment styles and the child's independence functioning. During my research I discovered your instrument Parental Attachment Questionnaire. I realize that permission to use the instrument and information of how to access the instrument can be accessed from your web page.
| I wanted to know if this instrument is adaptable for parent use (adult), or is it for the use of children only? Thank you for taking the time to respond to this message.
|
| Sincerely,
| Stephanie Scroggins

Maureen Kenny, Ph.D.

Dear Ms. Scroggins,

Thank you for your interest in my work. To the best of my recollection I had used this inventory years ago and have not used it since then. Also this was not an instrument that we constructed but rather adapted. If you send me the reference I will do my best to see whether and how I can be of help.

Good luck with your work.

S. Shulman

----- Original Message -----

From: "Stephanie Scroggins" <stscr@mail.twu.edu>

To: <shulman@mail.biu.ac.il>

Sent: Thursday, March 15, 2007 3:15 PM

Subject: Permission to use instrument

Dear Dr. Shulman,

My name is Stephanie Scroggins and I am a doctoral student at Texas Woman's University in Denton, Texas. My advising professor is Dr. Ron Fannin (Child Development). I am currently working on a proposed study with the variables of parental attachment styles and the child's independence functioning. During my research I discovered your instrument measure Maternal Perception of Child's Independence Measure. I would appreciate your permission to use the instrument and information of how to access the instrument.

I would also like to know if this instrument is used with adults or children, if it's children only could it be adapted for adult use? Thank you for taking the time to respond to this message.

Sincerely,
Stephanie Scroggins