

12-1-2013

# Relationship of college students' retrospective reports of perceived parenting style and current adult attachment style with primary caregiver, romantic partner, and college adjustment

Emily Ann Richter

Follow this and additional works at: <http://digscholarship.unco.edu/dissertations>

---

## Recommended Citation

Richter, Emily Ann, "Relationship of college students' retrospective reports of perceived parenting style and current adult attachment style with primary caregiver, romantic partner, and college adjustment" (2013). *Dissertations*. Paper 235.

This Text is brought to you for free and open access by the Student Research at Scholarship & Creative Works @ Digital UNC. It has been accepted for inclusion in Dissertations by an authorized administrator of Scholarship & Creative Works @ Digital UNC. For more information, please contact [Jane.Monson@unco.edu](mailto:Jane.Monson@unco.edu).

© 2013

EMILY A. RICHTER

ALL RIGHTS RESERVED

UNIVERSITY OF NORTHERN COLORADO

Greeley, Colorado

The Graduate School

THE RELATIONSHIP OF COLLEGE STUDENTS'  
RETROSPECTIVE REPORTS OF PERCEIVED  
PARENTING STYLE AND CURRENT ADULT  
ATTACHMENT STYLE WITH PRIMARY  
CAREGIVER, ROMANTIC PARTNER,  
AND COLLEGE ADJUSTMENT

A Dissertation Submitted in Partial Fulfillment  
Of the Requirements for the Degree of  
Doctor of Philosophy

Emily A. Richter

College of Education and Behavioral Sciences  
Department of Counseling Psychology

December 2013

This Dissertation by: Emily A. Richter

Entitled: *The Relationship of College Students' Retrospective Reports of Perceived Parenting Style and Current Adult Attachment Style with Primary Caregiver, Romantic Partner, and College Adjustment*

Has been approved as meeting the requirement of the Degree of Doctor of Philosophy in College of Education and Behavioral Sciences in Department of Counseling Psychology

Accepted by the Doctoral Committee

---

Stephen L. Wright, Ph.D., Research Advisor

---

Brian D. Johnson, Ph.D., Committee Member

---

Jennifer L. Murdock, Ph.D., Committee Member

---

Susan Hutchinson, Ph.D., Faculty Representative

Date of Dissertation Defense \_\_\_\_\_

Accepted by the Graduate School

---

Linda L. Black, Ed.D., LPC  
Dean of the Graduate School and International Admissions

## ABSTRACT

Richter, Emily A. *The Relationship of College Students' Retrospective Reports of Perceived Parenting Style and Current Adult Attachment Style with Primary Caregiver, Romantic Partner, and College Adjustment*. Published Doctor of Philosophy dissertation, University of Northern Colorado, 2013.

Given the continued need for a college degree, it is important for counseling psychologists to examine factors that relate to students' adjustment to college. Specifically, investigating students' retrospective reports of how they were parented, their adult attachment to their primary caregiver from childhood, and their adult romantic attachment and how these factors related to college adjustment might offer guidance for counseling psychologists who work with college students. Therefore, the current study sought to understand these relationships and used a sample of 191 undergraduate students from the Rocky Mountain region. Regression results found a significant relationship between levels of parenting style, attachment relationships, and college adjustment. It is noteworthy that greater levels of authoritative parenting were significantly associated with both parental and romantic attachment. Romantic attachment was significantly associated with overall college adjustment. Implications for counseling psychologists and future research directions were discussed.

## ACKNOWLEDGEMENTS

I want to express my gratitude to all of the students who took time out of their busy days to participate in this research. This study would not have been possible without them. I am thankful for my committee members: Drs. Stephen Wright, Brian Johnson, Jennifer Murdock, and Susan Hutchinson. Their feedback and encouragement helped me persevere through my doctoral program and this final dissertation. I give special thanks to my chair, Dr. Wright, for his unending support, attention to detail, humor, and reassurance. I am grateful for Dr. Johnson's passion for the topics of attachment and parenting, which inspired me to conduct this research. Dr. Murdock's knowledge of college student development and especially thoughtful comments were highly appreciated throughout this study. Lastly, I am thankful for Dr. Hutchinson and her role as a methodologist and mentor in this research project. Her patience, support, teaching, and guidance in completing the analyses were invaluable.

I want to also express gratitude for my incredible friends and family whose love and confidence in me were unwavering in this process. My husband, Luke, has accompanied me on this journey from start to finish and I cannot express enough thanks for his support. Similarly, my best friend, Amanda, has encouraged me on this path by keeping my spirits high and reminding me to laugh when the road was rocky. Finally, though she is no longer here for me to thank in person, my mother, Linda, deserves credit for both preparing me for this journey as well as supporting me throughout it. Her love,

kindness, and confidence in me helped me survive the most difficult times and celebrate the most wonderful times.

## TABLE OF CONTENTS

|   |    |
|---|----|
| CHAPTER I. INTRODUCTION.....                                      | 1  |
| Attachment Theory .....   | 2  |
| Parenting Styles .....  | 4  |
| College Adjustment .....  | 8  |
| Purpose.....  | 10 |
| Research Questions.....   | 12 |
| Hypotheses.....   | 12 |
| Delimitations.....  | 13 |
| Rationale and Purpose.....  | 14 |
| Definition of Terms.....  | 14 |
| CHAPTER II. LITERATURE REVIEW .....                               | 17 |
| Introduction.....   | 17 |
| Attachment Theory .....   | 18 |
| Attachment and Parenting Styles .....                             | 24 |
| Attachment and College Adjustment.....                            | 31 |
| Adult Attachment to Primary Caregiver and College Adjustment..... | 43 |
| Romantic Partner Attachment and College Adjustment.....           | 47 |
| Perceived Parenting Style and College Adjustment .....            | 51 |
| Conclusions.....  | 59 |
| CHAPTER III. METHODOLOGY .....                                    | 61 |
| Purpose.....  | 61 |
| Participants.....   | 61 |
| Measures .....  | 65 |
| Research Design.....  | 80 |
| Data Analysis .....   | 87 |
| CHAPTER IV. RESULTS.....  | 91 |
| Preliminary Analyses .....  | 93 |
| Primary Analyses .....  | 96 |



|  |     |
|--|-----|
| CHAPTER V. DISCUSSION .....  | 107 |
| Parenting Style, Attachment, and College Adjustment .....  | 108 |
| Parenting Style and Attachment.....  | 113 |
| Adult Attachment to Primary Caregiver and Adult Romantic Attachment...                             | 117 |
| Theoretical Implications .....   | 118 |
| Practice Implications.....   | 120 |
| Limitations and Future Research Directions.....  | 123 |
| Conclusions.....   | 127 |
| REFERENCES .....   | 129 |
| APPENDIX A. INTRODUCTORY INFORMATION .....   | 146 |
| APPENDIX B. DEMOGRAPHIC QUESTIONNAIRE.....   | 148 |
| APPENDIX C. PARENTAL AUTHORITY QUESTIONNAIRE.....  | 151 |
| APPENDIX D. THE EXPERIENCES IN CLOSE RELATIONSHIPS-<br>REVISED QUESTIONNAIRE .....                 | 153 |
| APPENDIX E. THE EXPERIENCES IN CLOSE RELATIONSHIPS-<br>RELATIONSHIP STRUCTURES QUESTIONNAIRE ..... | 155 |
| APPENDIX F. COLLEGE ADJUSTMENT SCALES .....  | 157 |
| APPENDIX G. INSTITUTIONAL REVIEW BOARD APPROVAL.....   | 159 |
| APPENDIX H. INFORMED CONSENT.....  | 161 |
| APPENDIX I. DEBRIEFING FORM .....  | 163 |

## LIST OF TABLES

|     |   |     |
|-----|---|-----|
| 1.  | Identification of Primary Caregiver .....   | 64  |
| 2.  | Normative Information .....   | 71  |
| 3.  | Descriptive Statistics for the Scales of Parenting Style, Attachment,<br>and College Adjustment.....      | 92  |
| 4.  | Correlations and Reliability Coefficients for Parenting Style,<br>Attachment, and College Adjustment..... | 93  |
| 5.  | Hierarchical Regression Explaining College Adjustment .....   | 99  |
| 6.  | Anxious Attachment to Romantic Partner Explained by Parenting Style .....                                 | 101 |
| 7.  | Avoidant Attachment to Romantic Partner Explained by Parenting Style....                                  | 102 |
| 8.  | Anxious Attachment to Primary Caregiver Explained by Parenting Style....                                  | 104 |
| 9.  | Avoidant Attachment to Primary Caregiver Explained by Parenting Style ..                                  | 104 |
| 10. | Anxious Attachment to Romantic Partner Explained by Attachment to<br>Primary Caregiver .....              | 105 |
| 11. | Avoidant Attachment to Romantic Partner Explained by Attachment to<br>Primary Caregiver .....             | 106 |

## **CHAPTER I**

### **INTRODUCTION**

The college student body presents a unique cross section of our population where young adults are transitioning into new, often challenging chapters of their lives.

Adjusting to these changes may be difficult or more effortless, depending on the unique factors present for each college student. In addition to general college adjustment, other factors such as relationship attachment with a significant other (i.e., romantic partner) as well as relationship attachment with the primary caregiver from childhood may also be prominent during this time in a young adult's life. In considering these factors for this population, it would be helpful to explore the contribution of perceived parenting style as a salient predictor of these factors as well as how these variables may be interrelated.

While various studies have individually examined perceived parenting style as it is related to current attachment in adult relationships (Bartholomew & Horowitz, 1991; Simpson, 1990), perceived parenting style as it is related to later developmental outcomes such as college adjustment (Darling & Steinberg, 1993; Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994), and adult attachment as it is related to college adjustment (Frey, Beesley, & Miller, 2006; Kenny & Rice, 1995; Mattanah, Hancock, & Brand, 2004; Parade, Leerkes, & Blankson, 2010), no study has simultaneously examined the aforementioned variables. Thus, research was needed to combine these unique variables

to ascertain the importance and interrelationship among the variables of perceived parenting style, current parental and romantic attachment, and college adjustment.

### **Attachment Theory**

Attachment theory proposes that the quality and style of attachments formed early in infancy and childhood are related to later psychological development (Bowlby, 1977, 1982) and that one's relationship with primary caregivers affects his or her attachments to others later in life (Ainsworth, 1989; Bowlby, 1970, 1977, 1980, 1982). Attachment experiences and relationships are organized into internal working models of attachment, which are expressed throughout the lifespan in later relationships (Ainsworth, Blehar, Waters, & Wall, 1978; Bartholomew, 1990; Bowlby, 1982). Bowlby (1982) noted that attachment styles formed during the infant-caregiver relationship remain relatively stable after early childhood (ages 3-4). Therefore, these internal working models of attachment persist throughout the lifespan and likely affect a person's perceptions, interpersonal interactions, and behavior in relationships with others such as romantic partners and parents. In understanding early attachments, Bowlby (1977) proposed that "there is a strong causal relationship between an individual's experiences with his parents and his later capacity to make affectional bonds..." (p. 206). Specifically, early attachment experiences allow an individual to develop an internal schema or model of attachment, which is likely reflected in relationships in adulthood. It has become clear that these early attachment models may be manifested in romantic and intimate relationships in adulthood. Essentially, early attachment styles lead to internalized working models of attachment that influence adult relationships (Collins & Read, 1990; Neal & Frick-Horbury, 2001). Ainsworth (1989) referred to these adult romantic relationships as

“sexual pair bonds” that involve reproductive, attachment, and caregiving systems (p. 713). This link suggests that there is likely an association with the early attachment in an individual’s relationship and attachment style with a romantic partner whereby individuals who report secure childhood attachments show greater trust, dependability, and closeness in contrast with individuals reporting insecure attachments (Bowlby, 1973; Collins & Read, 1990; Feeney & Noller, 1990).

Similarly, early attachment styles may also be associated with the attachment style in the individual’s adult relationship with the primary caregiver from childhood (Shemmings, 2006). In early adulthood, individuals seek autonomy from caregivers while still continuing “a meaningful association with their parents, regardless of the fact that the parents penetrate fewer aspects of their lives than they did before” (Ainsworth, 1989, p. 710). The infant-caregiver attachment system may endure into the individual’s adult life and be reflected in his/her relationship with the caregiver in adulthood. It is clear that early attachments provide, in part, the basis for attachments later in life. They affect relationships with romantic partners as well as the caregiver child relationship in adulthood, again suggesting stability of attachment internal working models over the lifespan. This stability provides the basis for which one can explore adult attachment relationships to various individuals and their relationship to retrospectively reported perceived parenting style and current college adjustment.

Given that attachment theory focuses on the quality of the attachment between the infant and the primary caregiver, it must be noted that this bond is affected by both caregiver and infant characteristics. The caregiver plays a critical role in the quality and formation of these attachment experiences (Ainsworth, 1979, 1989; Bartholomew; 1990;

Bowlby, 1969). The caregiver is responsible for providing protection and nurturance to the infant; based on these behaviors, the infant may develop an attachment style that demonstrates security or insecurity. Infants may show secure attachment fostered by protection from the primary caregiver and a general sense of security. Securely attached infants feel comfortable exploring their environments with the expectation that they can return to their primary caregiver for protection (Ainsworth, 1979). Caregivers must continue to provide nurturance, structure, boundaries, and protection as the infant progresses through childhood and adolescence. These early experiences will be generalized into future relationships the individual has throughout his/her lifespan (Bartholomew & Horowitz, 1991; Bowlby, 1973). Experiences regarding expectations from the caregiver and whether the caregiver is experienced as a secure base are internalized and carried into adulthood where they may be generalized in future relationships with romantic partners and other adults (Bartholomew & Horowitz, 1991; Simpson, 1990).

### **Parenting Styles**

As noted previously, the caregiver plays an integral role in the attachment bond that is formed between infant and caregiver (Ainsworth et al., 1978; Bartholomew, 1990; Bowlby, 1969). The style of parenting the caregiver utilizes is a useful way to understand and conceptualize the caregiver's behavior toward the individual from infancy into adulthood. Understanding the variable of parenting style and its effects on attachment and later development is essential when considering the population under study: college students. Parenting style may represent a unique factor contributing to significant variance in the attachments college students maintain with their significant

others as well as their primary caregivers from childhood. It may also be associated with their overall adjustment. Baumrind (1971) identified three different types of parenting styles--authoritative parenting, authoritarian parenting, and permissive parenting—that are derived from parental behavior on continuums of demandingness and responsiveness. These styles are not discreet and behaviors are generally endorsed within each style though typically, levels on one style are greater than levels on the other two.

Parenting style represents an important construct affecting the development of internal working models of attachment, specifically the expectations and perceptions of the behaviors of the caregiver (Ainsworth et al., 1978; Baumrind, 1971). Essentially, parental behavior for attachment styles provided by Bowlby (1977) appears to parallel the responses Baumrind described regarding parental behavior that primary caregivers exhibit toward their children (Neal & Frick-Horbury, 2001). In providing the necessary components for building a secure attachment, the primary caregiver must be consistent, predictable, and clear in expectations, which is consistent with Baumrind's description of authoritative parenting (Neal & Frick-Horbury, 2001). In contrast, when a primary caregiver is overly demanding and controlling (similar to Baumrind's authoritarian parenting style) or inconsistent, unresponsive, or provides unclear expectations (similar to permissive parenting), it may affect a child's sense of security, possibly impacting his/her attachment with the primary caregiver (Neal & Frick-Horbury, 2001). This link between parenting style and attachment style provides the foundation for understanding patterns of later interpersonal attachment and relationships with romantic partners and the primary caregiver in adulthood (Andersson & Perris, 2000; Feeney & Noller, 1990; Neal & Frick-Horbury, 2001). Various studies examining parenting style with respect to adjustment

and adult relationships have presented mixed evidence, especially regarding its effect over attachment (Karavasilis, Doyle, & Markiewicz, 2003; Neal & Frick-Horbury, 2001). In general, research supports a link between parenting style and effects on developmental outcomes including formation of relationships and overall adjustment (Darling & Steinberg, 1993; Hickman, Bartholomae, & McKenry, 2000; Neal & Frick-Horbury, 2001; Sheehan & Noller, 2002). Furthermore, authoritative parenting has been associated with desirable developmental outcomes while other parenting styles such as permissive parenting and authoritarian parenting have been associated with less positive outcomes (Darling & Steinberg, 1993; Gerlsma, 2000; Hickman et al., 2000; Steinberg et al., 1994).

Given the relation of early attachment style and parenting style on future development, it is critical to examine these variables together. Parenting style and attachment style have been explored separately in a variety of studies; however, the relationship of these variables in adulthood has been considered less. Often an individual's attachment style and internal working model of attachment (Bartholomew & Horowitz, 1991; Bowlby, 1982) are likely affected by his/her caregiver's parenting style (Baumrind, 1978) as well as his/her perceptions of the caregiver's parenting style. Research supports this connection: infants' secure attachments are related to sensitive caregiving when they are responded to promptly, consistently, and appropriately; whereas infants whose caregivers demonstrate less physical contact, less routine holding, resentful or rejecting behavior tend to be insecurely attached (De Wolff & van IJzendoorn, 1997; Isabella, 1993; McElwain & Booth-LaForce, 2006; van IJzendoorn, Schuengel, & Bakersmans-Kranenberg, 1999). Neal and Frick-Horbury (2001) also supported the link between parental behavior and attachment style in adult relationships, noting the



similarities between authoritative, authoritarian, and permissive parents with the characteristics of secure, avoidant, and anxious-ambivalent attachment styles. Results from their study suggested a strong relationship between the characteristics of reported authoritative parenting styles and an adult secure attachment style (Neal & Frick-Horbury, 2001). Understanding this connection, as well as the proposal that internal working models of attachment are generalized to future relationships, one would expect a clear link between perceived parenting style and adult attachment style, specifically with romantic partners as well as with the primary caregiver from childhood. In considering how children internalize the attachment to their primary caregiver as well as the primary caregiver's parenting style, it is of interest whether these expectations and perceptions generalize to the individual's adult relationship and attachment with the same primary caregiver.

Adjustment is another variable to consider in understanding the relationship of parenting style and attachment. Several studies have demonstrated that the variable of parenting style is related to college adjustment (Frey et al., 2006; Kenny & Donaldson, 1991; Kenny & Rice, 1995; Lapsley & Edgerton, 2002; Simpson, 1990). A study by Hickman et al. (2000) demonstrated a link between parenting styles and college adjustment and achievement. Authoritarian and permissive parenting styles were associated with both poor college adjustment and poor academic grades, while high achieving students and students with greater academic adjustment and competence reported more authoritative characteristics from their parents (i.e., greater understanding, approval, encouragement, and less overly strict discipline; Hickman et al., 2000). Bowlby (1977) acknowledged the importance of the primary caregiver's response as

affecting the individual's ability to achieve healthy development psychologically. In examining the contributions of perceived parenting style and attachment to later adult outcomes, Neal and Frick-Horbury (2001) acknowledged that early attachments had long-term effects for development and adult functioning over those of perceived parenting style. Adults reporting secure attachments also reported greater development in self-perception and feelings about others (Neal & Frick-Horbury, 2001). These components are likely very useful in adjusting to a college environment. The links demonstrated between attachment style and adjustment and perceived parenting style and adjustment have been explored but not combined in such a way to delineate the association of each on current adult attachment to a romantic partner, current attachment to the primary caregiver from childhood, and overall college adjustment.

### **College Adjustment**

The college time period is a developmental period during which individuals are seeking autonomy and separation from their families while forming new relationships with peers and possibly with romantic partners (Arnett, 2000). New experiences in academics and acceptance of different life responsibilities often pose challenges for college students in terms of adjusting. Given the assertions that many areas of an individual's adult life and development are likely affected by both parenting style (Baumrind, 1971) and internalized models of attachment (Ainsworth, 1989; Bartholomew, 1990; Bowlby, 1977), it is necessary to explore the general and specific areas related to college adjustment along with these factors. Research supports a link between secure parental attachment and many different college adjustment areas including peer relationships, academic achievement, and psychological health (Frey et al.,

2006; Kenny & Rice, 1995; Mattanah et al., 2004; Parade et al., 2010). Other authors noted the links between attachment to other relationship figures such as a romantic partner with adjustment outcomes in college (Kassel, Wardle, & Roberts, 2006; Wei, Russel, & Zakalik, 2005).

In investigating college adjustment with the aforementioned variables, it can be conceptualized as psychological and adjustment problems experienced by college students in the areas of anxiety, depression, suicidal ideation, substance abuse, self-esteem, interpersonal problems, family problems, academic problems, and career problems. Adjustment can be examined in one of these specific areas or by combining all of the areas together to examine overall college adjustment (Enochs & Roland, 2006; Eschun, 2006; Klein & Pierce, 2009). Bowlby's (1977) assertion that attachment likely affects future psychological development as well as studies that have demonstrated connections between attachment and areas of college adjustment such as psychological distress (Frey et al., 2006), emotional and interpersonal functioning (Kenny & Rice, 1995; Mattanah et al., 2004), problem solving, friendship formation and social anxiety (Parade et al., 2010), and academic functioning (Mattanah et al., 2004) provide the foundation for further investigation of these variables with those of specific adult attachments as well as perceived parenting style.

Connections between current attachment style and specific areas of college adjustment measured by the *College Adjustment Scales* (Anton & Reed, 1991) such as anxiety (Hankin, Kassel, & Abela, 2005; Weems, Berman, Silverman, & Rodriguez, 2002), depression (Bifulco, Moran, Ball, & Bernazzani, 2002; Wei, Mallinckrodt, Larson, & Zakalik, 2005; Wei et al., 2005), self-esteem (Blysmá, Cozzarelli, & Sumer, 1997;

McCormick & Kennedy, 1994), and substance use (Caspers, Cadoret, Langbehn, Yucuis, & Troutman, 2005; Kassel et al., 2006) have also been established. It is necessary to consider these various adjustment areas taken together and conceptualized as overall college adjustment in relationship to attachment style and perceived parenting style. Overall college adjustment may also serve as moderator or mediator variable in understanding current attachment patterns with a romantic partner as well as with the primary caregiver from childhood.

### **Purpose**

The purpose of this study was to investigate the relationship among perceived parenting style, adult attachment to primary caregiver, adult attachment to romantic partner, and overall college adjustment in a college student population. The current body of research agrees that the quality of attachment and continuity of caregiving that supports a secure attachment are highly related to later development including better relationships and healthier attachments with others (i.e., romantic partners and the primary caregiver from childhood) throughout the lifespan as well greater overall college adjustment (Frey et al., 2006; Kenny & Rice, 1995; Thompson, 2006). Similarly, research supports the link between parenting style and developmental outcomes including later attachment to romantic partner and primary caregiver from childhood as well as college adjustment (Neal & Frick-Horbury, 2001; Sheehan & Noller, 2002). There is mixed evidence on the effects of parenting style over adult attachment style for adult relationships and variations of adjustment (Neal & Frick-Horbury, 2001). At the time of this study, no current literature combined all of these variables to determine the unique contributions and interactions between them and their effects on overall college

adjustment. It was clear there was a greater need for an understanding of the interaction of these variables simultaneously and how they affect one another.

A greater understanding of the constructs of current attachment style with romantic partner and with the primary caregiver from childhood with perceived parenting style and their connection to one another would allow further information on how parenting might affect current attachment and relationships for individuals. It was essential to understand how attachment style in adulthood is related to past experiences of being parented and how both of these variables affect overall college adjustment. Valuable information was gained regarding parenting styles that were related to optimal attachment styles in adulthood to romantic partners and the primary caregiver from childhood. It was also useful to understand how perceptions of past parenting style and current attachment styles with romantic partners and caregivers were related to overall college adjustment; understanding the unique contributions of these variables as well as consideration of the variables together allowed for greater understanding of their collaborative impact on adjustment in college. It was necessary to consider attachment style as an essential developmental pathway in explaining future functioning and adjustment in college.

Furthermore, understanding an adult's current attachment style with consideration of its connection with perceived parenting style in childhood and its potential link to college adjustment could provide useful treatment information for addressing college students' adjustment concerns. In treating college students with adjustment concerns in a variety of areas, this research provided valuable information regarding how perceived parenting style and current attachment styles contributed to these concerns and how they

might be addressed to better understand and treat the adjustment concerns with the goal of offering more optimal services to college students. Specifically, this research provided useful information about potential interventions and where interventions might be most usefully focused for clients based on a greater understanding of how adjustment concerns might have developed. It was necessary to examine these variables (perceived parenting style, attachment to caregiver from childhood, attachment to romantic partner and college adjustment) simultaneously to ascertain the inter-relationship between each as well as the effect of each on the other.

### **Research Questions**

- Q1 To what extent did retrospective reports of parenting style based on levels of authoritarianism, authoritativeness, and permissiveness explain overall college adjustment?
- Q2 To what extent did current levels of adult attachment style to romantic partner explain overall college adjustment?
- Q3 To what extent did current levels of adult attachment style to primary caregiver explain overall college adjustment?
- Q4 To what extent did retrospective reports of parenting style based on levels of authoritarianism, authoritativeness, and permissiveness explain levels of current adult attachment to romantic partner?
- Q5 To what extent did retrospective reports of parenting style based on levels of authoritarianism, authoritativeness, and permissiveness explain levels of current adult attachment to primary caregiver?
- Q6 To what extent did current levels of attachment to primary caregiver explain current levels of adult attachment style to romantic partner?

### **Hypotheses**

- H1 Greater levels of authoritativeness in parenting are related to higher levels of current secure attachment with romantic partner.
- H2 Greater levels of authoritativeness in parenting are related to higher levels of current secure attachment style with primary caregiver.

- H3 Greater levels of authoritativeness in parenting and higher levels of current secure attachment to romantic partner and primary caregiver are related to greater overall college adjustment.
- H4 Greater levels of permissiveness in parenting and/or greater levels of authoritarianism in parenting are related to greater levels of insecure attachment with romantic partner.
- H5 Greater levels of permissiveness in parenting and/or greater levels of authoritarianism in parenting are related to greater levels of current insecure attachment with primary caregiver.
- H6 Greater levels of permissiveness in parenting and/or greater levels of authoritarianism in parenting and greater levels of current insecure attachment are related to the poorest overall college adjustment.
- H7 Greater levels of secure attachment to romantic partner and greater levels of secure attachment to primary caregiver are associated with greater overall college adjustment.

### **Delimitations**

This study was designed to examine relationships among the variables of retrospective report of parenting style, current attachment style with romantic partner, current attachment style with primary caregiver, and overall college adjustment in a college population. The sample was bound within the undergraduate university systems at a mid-size western university in the Rocky Mountain region. By nature, this sample was limited to the males and females within these universities and within the given college age range. Any generalization of results should be considered with this limitation. The variables were all measured using self-report techniques, which were subject to bias from the participant reporting. The variable of perceived parenting style was limited in that parenting style related to the participant's report regarding the *primary* caregiver was considered, disallowing report of perceptions of other caregivers involved in the participant's upbringing.

## **Rationale and Purpose**

The purpose of this study was to investigate the relationship between perceived parenting style, adult attachment to primary caregiver, adult attachment to romantic partner, and overall college adjustment in a college student population.

## **Definition of Terms**

**Anxious/ambivalent attachment.** Characterized by a desire for closeness and dependence with extreme fear of abandonment (Ainsworth et al., 1978). In measurement, anxious attachment is characterized by higher scores on anxiety and lower scores on avoidance subscales (Fraley et al., 2000).

**Attachment style.** Derived from the quality of the attachment bond formed between infant and caregiver related to how the caregiver provides security space for exploration (Bowlby, 1977).

**Authoritarian parenting style.** Characterized by high demanding behavior and low responsiveness (Baumrind, 1991).

**Avoidant attachment.** Characterized by difficulty in depending on or trusting others and general discomfort with and devaluation of close relationships (Ainsworth et al., 1978). In measurement, avoidant attachment is characterized by higher scores on avoidance and lower scores on anxiety subscales (Fraley et al., 2000).

**Authoritative parenting style.** Characterized by high responsiveness and high demanding behavior (Baumrind, 1991).

**College adjustment.** Defined as an overarching term referring to the college student's overall psychological adjustment encapsulating the variables of anxiety, depression, suicidal ideation, substance abuse, self-esteem, interpersonal problems,



family problems, academic problems, and career problems as measured by the *College Adjustment Scale* (Anton & Reed, 1991). In measurement, lower scores generally indicate greater adjustment in a given area.

**Demandingness.** Refers to the specific demands the parent places on the child such as maturity demands, disciplinary efforts, supervision, and confrontation when the child is disobedient (Baumrind, 1991).

**Insecure attachment.** Considered on a continuum of secure to insecure attachment and is characterized by an individual's difficulty in seeking proximity and closeness with others as well as fearing abandonment in close relationships. The individual is uncomfortable with intimacy and autonomy (Ainsworth et al., 1978; Brennan, Clark, & Shaver, 1998). In measurement, insecure attachment is characterized by higher scores on anxiety and avoidance subscales (Fraley et al., 2000).

**Parenting style.** Refers to parenting behavior represented on a continuum of responsiveness to demandingness related to how the caregiver meets the needs of the child for limit setting and nurturance (Baumrind, 1991).

**Permissive parenting style.** Characterized by low controlling or demanding behavior and high responsiveness (Baumrind, 1991).

**Responsiveness.** Refers to the parent's behavior in fostering self-regulation, self-assertion, and individuality through support and attunement to the child's needs and demands (Baumrind, 1991).

**Secure attachment.** Considered on a continuum of secure to insecure attachment and is characterized by an individual's ability to be close to, and depend on others, and not fear abandonment in close relationships. The individual is comfortable with intimacy

and autonomy (Ainsworth et al., 1978; Brennan et al., 1998). In measurement, secure attachment is characterized by lower scores on anxiety and avoidance subscales (Fraley et al., 2000).

## **CHAPTER II**

### **LITERATURE REVIEW**

#### **Introduction**

The process of forming one's attachment style begins early in life and is fostered and maintained through various experiences throughout the lifespan (Ainsworth, 1989; Bartholomew, 1990; Bowlby, 1970). Some of the most influential experiences occur throughout childhood and adolescence between the primary caregiver and the individual. It is necessary to understand how these experiences of being parented affect an individual's later interpersonal relationships and attachment to others. Research suggested that a link clearly exists between attachment style and perceived parenting style (e.g., Andersson & Perris, 2000; Feeney & Noller, 1990; Güngör & Bornstein, 2010; Neal & Frick-Horbury, 2001; Sheehan & Noller, 2002). In understanding the transition into adulthood and the college experience, it is important to explore how the recollection of being parented affects overall adjustment in college. Research in this area suggested that retrospective perceptions of parenting style were related to adjustment areas in college (e.g., Buri, Louiselle, Misukanis, & Mueller, 1988; Lamborn, Mounts, Steinberg, & Dornbusch, 1991; Neal & Frick-Horbury, 2001; Strage & Brandt, 1999). In addition, research investigated how individuals' adult attachment to his or her primary caregiver from childhood and his or her attachment to a romantic partner affected overall adjustment in college. Again, research supported a link between current attachment style

and college adjustment (e.g., Black & Shutte, 2006; Frey et al., 2006; Hankin et al., 2005; Lapsley & Edgerton, 2002).

Research examining the variables of perceptions of parenting experience, adult attachment, and college adjustment together was warranted given that no study to date had investigated these areas simultaneously. Based on the stability of attachment from infancy into adulthood (Bartholomew, 1990; Bowlby, 1973), it was necessary to consider adult attachment in both current romantic relationships and current relationships with the primary caregiver from childhood in order to determine how attachment might be related individuals' retrospectively reported perceived parenting style and his or her overall college adjustment. In the current study, attachment theory was used to conceptualize the impact of parenting style on current attachments and overall college adjustment. For the purposes of conducting this study, a thorough literature review was conducted. Topics explored included attachment theory, parenting style, and college adjustment. Within these areas, literature was examined to better understand how romantic and parental attachment were related to parenting style and how all of these variables were associated with areas of college adjustment. Intentional focus was placed on studies that utilized a similar sample (i.e., college students) though consideration was also given to studies utilizing adolescents, children, and other young adults.

### **Attachment Theory**

Attachment style can be conceptualized as a behavioral system in which externally emitted behaviors represent an inner organization of attachment processes (Bowlby, 1977). The attachment behavior of an individual begins shortly after birth when an infant exhibits specific behaviors aimed to form a relationship with the primary

caregiver and to attain or maintain proximity to the caregiver (Bowlby, 1977). For example, an infant might exhibit behaviors such as crying or clinging, which serve to elicit care from the caregiver (Bowlby, 1977). The response of the caregiver is to be available and responsive, as well as to intervene when necessary. The caregiver must meet the child's needs for protection but also foster exploration (Bowlby, 1977). The variable is understood in terms of the extent to which the caregiver provides a secure base and encourages exploration of the environment. Bowlby (1977) noted that the responsibilities of the caregiver are essential: "There is substantial evidence that how it [the caregiver's responsibility] is discharged by a person's parents determines in great degree whether or not he grows up to be mentally healthy" (p. 204). As the infant progresses developmentally, he/she continues to emit behaviors representing the internalized model of attachment. Attachment behaviors are thought to vary, depending in part on the early attachment experiences the individual has had (Ainsworth, 1979, 1989; Bowlby, 1977). Ainsworth (1989) noted that in childhood, the individual communicates plans and wishes with the caregiver and can physically achieve distance from the caregiver to explore his/her world. In adolescence, the individual begins to seek attachments to other individuals including peers and intimate partners (Ainsworth, 1989). Should the optimal attachment processes be achieved by caregiver and child, Bowlby suggested that the child will exhibit security, self-reliance, trust in others, an ability to help the self, and ask for help when needed. In contrast, less optimal attachment conditions may lead to insecurity, anxiety, over conscientiousness, guilt, avoidance, and other less desirable characteristics in later relationships (Bowlby, 1977).

Ainsworth et al. (1978) described three distinct patterns of infant-caregiver attachment derived from use of the strange situation task and from Bowlby's (1969) original conceptualization of attachment. The secure attachment pattern is characterized by an individual's ability to be close to others, depend on others, and not fear abandonment in close relationships. Children with a secure pattern of attachment tend to have parents who are responsive to the child's needs (Ainsworth et al., 1978). The anxious/resistant pattern of attachment is characterized by an individual's desire for closeness and dependence with extreme fear of abandonment. The avoidant pattern of attachment is characterized by an individual's difficulty in depending on or trusting others as well as a general discomfort with and devaluation of close relationships. Children exhibiting these types of insecure attachment tend to have parents who are insensitive to the child's needs, rejecting, or inconsistent in meeting the child's needs (Ainsworth et al., 1978).

Recent research has examined attachment orientations based on two orthogonal dimensions: anxiety and avoidance. These dimensions allowed Ainsworth et al.'s (1978) three types to be arranged as regions based on the two orthogonal dimensions (Brennan et al., 1998). Through further investigation of attachment relationships in adults, Brennan et al. (1998) determined that the two fundamental dimensions of attachment patterns (attachment-related anxiety and attachment-related avoidance) were descriptive of how individuals in relationships exhibit attachment-related behavior. When an individual scores high on measures of attachment-related anxiety, he or she tends to exhibit fear about his or her partner's availability, responsiveness, and attentiveness; whereas low scorers on the dimension of attachment-related anxiety tend to be more secure in

perceiving the responsiveness of his or her partners (Brennan et al., 1998). On the dimension of attachment-related avoidance, individuals who score high tend not to rely on nor open up to others easily and avoid interpersonal contact (Brennan et al., 1998). Those who score lower on this dimension are more secure and comfortable in being with others, opening up to others, depending on others, and having others depend on them. These orthogonal dimensions allow for four categories of attachment patterns based on scores derived from the attachment-related anxiety and the attachment-related avoidance dimensions (Brennan et al., 1998): (a) an individual scoring high in both anxiety and avoidance dimensions would fall into the category of fearful-avoidant; (b) an individual scoring low on the avoidance dimension and high on the anxiety dimension would fall into the preoccupied category of attachment; (c) an individual scoring low on the anxiety dimension and high on the avoidance dimension would fall into the dismissing-avoidant category; and (d) an individual scoring low on both anxiety and avoidance dimensions would fall into the secure category of attachment (Brennan et al., 1998). While these attachment categories, yielded from scores on the orthogonal dimensions, can provide useful information, it is clear the measurement of attachment in a continuous manner allows for a greater understanding of the variable of attachment.

As noted previously, early attachments provide an internal schema or model of attachment that is reflected in later adult relationships (Bartholomew, 1990; Collins & Read, 1990; Neal & Frick-Horbury, 2001). These attachment schemas are likely reflected in romantic relationships with significant others (Bowlby, 1973; Collins & Read, 1990; Feeney & Noller, 1990). Attachment behavior in adulthood appears to function similarly as it does in infant-caregiver relationships in terms of how individuals

react to separation (differences in how more avoidant adults react versus less avoidant adults) and how individuals choose romantic partners (look for responsive, sensitive, caregiving qualities; Bartholomew, 1990; Hazan & Shaver, 1987). Hazan and Shaver (1987) acknowledged that research on adult attachment reveals similar patterns seen in infant-caregiver attachment relationships. Securely attached adults tend to use his or her romantic partner as a “secure base.” They are also more likely to seek support from his or her partners when in distress and provide support accordingly (Hazan & Shaver, 1987). Individuals’ attachment schemas carried from infancy throughout adulthood are also likely reflected in adult relationships with the primary caregiver from childhood (Shemmings, 2006).

When the attachment process begins at birth, the groundwork is laid for the development of the infant’s internal working model of attachment (Bowlby, 1982). The primary caregiver is essential in providing safety as well as nourishment for growth of the infant. These initial interactions and formation of attachment bonds are essential for ongoing growth. Infants naturally act in such a way to ensure the proximity of the primary caregiver as well as to elicit specific care behaviors from the caregiver; these actions are characterized as biologically driven and necessary for the survival of the infant (Ainsworth, 1989; Bowlby, 1982). These behaviors require responsiveness from the caregiver in terms of protection, proximity, and general care. As the infant develops, the attachment bond provides a base from which the infant can explore the environment and return to for security (Ainsworth, 1989; Bowlby, 1982). In responding to the infant, attachment theory implies the importance of the caregiver’s ability to not only be aware of the infant’s needs and available to the infant but also to be responsive and warm in



attending to them (Ainsworth, 1989). This emotional bond is reinforced throughout the process of caring for the developing child. In general, it is posited that when the caregiver is responsive, available, and warm in meeting the needs of the child, the child will develop a sense of trust with the caregiver (Ainsworth, 1989; Bartholomew, 1990; Bowlby, 1982). In contrast, when a caregiver is unavailable, unresponsive, or fails to provide the stability necessary, the infant develops a sense of mistrust and may even give up on eliciting caretaking behaviors from the caregiver (Bowlby, 1982). This foundational relationship and formation of emotional bond serves as the basis for the development of an internal model of secure or insecure attachment.

Ainsworth (1989) noted that attachment patterns may be increasingly stable and persistent over time but are affected by environmental factors and are still malleable depending on new interactions and experiences in relationships. Ainsworth et al.'s (1978) categorization of attachment patterns (secure, anxious/ambivalent, and avoidant), based on Bowlby's (1982) attachment theory, provides the basis for understanding an individual's internal working model of attachment. Brennan et al.'s (1998) conceptualization uses these components to provide a dimensional model of attachment and also asserts that the attachment system (internal working models) continues to influence the individual into adulthood. While attachment patterns may be subject to some change based on environmental variables, they appear to be a foundation from which the individual works throughout the lifespan (Collins & Read, 1990; Feeney & Noller, 1996; Scharfe & Bartholomew, 1994; Zhang & Labouvie-Vief, 2004). Given the caregiver's role of being responsive and providing the necessary components for a

functional attachment system, it is necessary to explore parenting and parenting styles in relationship to attachment.

### **Attachment and Parenting Styles**

It is clear from Bowlby's (1982) conceptualizations of individuals' formation of internal working models of attachment and Ainsworth's (1989) discussion of the development of attachment patterns as related to caregiver behavior that a primary focus in understanding adult attachment must be in understanding the behavior of the caregiver, specifically, parenting style. In order to gain a greater understanding of how attachment and parenting styles are related, a thorough description of parenting styles is provided.

The construct of perceived parenting style refers to the way one retrospectively recalls being parented. It includes characteristics of the primary caregiver's behavior with regard to raising the child. Baumrind's (1971) parenting styles were originally proposed based on interviews with children and parents and observations of parenting interactions and family interactions. The categories of parenting styles can be understood based on two dimensions: demandingness and responsiveness (Baumrind, 1991; Maccoby & Martin, 1983). Demandingness refers to the caregiver's demands on the child including supervision, discipline, and confrontation; while responsiveness refers to "the extent to which parents intentionally foster individuality, self-regulation, and self-assertion by being attuned, supportive and acquiescent to children's special needs and demands" (Baumrind, 1991, p. 62).

Dimensions of parenting styles have been conceptualized, which include authoritative, authoritarian, and permissive (Baumrind, 1971). Parents who have a high degree of demandingness and responsiveness can be viewed as more authoritative parents

who provide clear expectations and clear monitoring of behavior with their children. They are assertive and are likely to discipline children in a supportive manner. Parents with more authoritative behavior are also warm and receptive toward the child's needs as well as being rational and providing clear expectations (Baumrind, 1971). Parents who reflect a high level of demandingness but a low level of responsiveness are considered higher in the dimension of authoritarian parenting. They expect rules to be obeyed without question and may discipline more punitively. Caregivers high in the authoritarian dimension may be controlling and restrict the child's autonomy (Baumrind, 1971). The more permissive parent is a caregiver who has a high level of responsiveness and a low level of demandingness. This parent is generally responsive and warm but lacks in demandingness. He/she is likely to be non-confrontational, lenient, and provide generous support and love (Baumrind, 1971). Similarly, this caregiver may also be inconsistent in providing feedback and likely places few limits on the child (Baumrind, 1971). A fourth style identified by Baumrind (1991) is the neglecting-rejecting parent. This caregiver lacks in both demandingness and responsiveness and may be disengaged. He/she likely does not provide significant structure and may actively reject the child or parenting responsibilities (Baumrind, 1991). Baumrind's (1971) initial study on these parenting styles indicated that authoritative parenting promoted positive development in both boys and girls through fostering responsible, independent, and competent behavior.

The caregiver's degree of demandingness and responsiveness influences to a great degree the type of attachment an individual is likely to form with that caregiver. In examining what contributes to the formation of an attachment (caregiver behavior), many consistencies are seen with the characteristics outlined between different parenting styles

(Ainsworth, 1989; Bowlby, 1982; Rosen & Rothbaum, 1993). As noted previously, attachments formed early on tend to be somewhat stable and persist into adulthood (Bartholomew & Horowitz, 1991; Bowlby, 1973; Collins & Read, 1990; Davila & Cobb, 2004; Feeney & Noller, 1996; Scharfe & Bartholomew, 1994; Shemmings, 2006; Zhang & Labouvie-Vief, 2004). The importance of parenting style in affecting internal working models of attachment along with the persistence of those attachment schemas throughout life makes these two variables (current attachment style and perceived parenting behavior) essential in understanding later life outcomes such as college adjustment.

Various studies have examined the relationship between attachment styles and parental caregiving, perceptions of family members, recollections of parenting, and perceptions of the primary caregiver. The current study utilized an undergraduate sample in understanding parenting style and attachment. However, a foundational understanding of how these variables might be related can be understood through studies examining the variables in populations of children and adolescents such as those conducted by Rosen and Rothbaum (1993), Karavasilis et al. (2003), Sheehan and Noller (2002), and Güngör and Bornstein (2010). In their observational study, Rosen and Rothbaum examined parental behavior and its relationship to attachment utilizing Ainsworth et al.'s (1978) classifications of attachment styles. The authors noted that theoretically a secure attachment relationship reflects certain parental behaviors such as responsiveness and sensitivity. Research, however, is inconsistent in supporting the association between dimensions of maternal behavior and attachment styles (Rosen & Rothbaum, 1993). Rosen and Rothbaum's study indicated a modest association between the variables of

attachment and parental caregiving where mothers of securely attached children were generally more responsive than were mothers of insecurely attached children.

In a similar study, Karavasilis et al. (2003) examined the association between parenting style and the quality of child-mother attachment during middle childhood and adolescence. The conclusions were supportive of those found by Rosen and Rothbaum (1993). Authoritative parental behaviors such as warm parental involvement, psychological autonomy granting, and behavioral monitoring were found to differentiate between securely attached and insecurely attached children and adolescents (Karavasilis et al., 2003). In contrast, mothers of children with insecure attachment patterns (specifically avoidant attachment) were less responsive, more withdrawn, rejecting, and uncaring (reflecting negligent parenting; Karavasilis et al., 2003). Rosen and Rothbaum's study and Karavasilis et al.'s study both indicated the importance of understanding how the variables of parental behavior and style are linked with attachment styles in children and adolescents.

In a related study, Sheehan and Noller (2002) examined adolescent perceptions of differential parenting for twins and the relationship of those perceptions to attachment style. To understand parental behavior and style, Sheehan and Noller utilized reports from sets of twins related to his or her perceptions of differential parenting behavior including parental affection and parental control. These reports were associated with attachment style as well as other variables related to adolescent adjustment. Sheehan and Noller concluded that parental behaviors perceived to disfavor one twin (perceptions of less maternal affection, less support, or rejection) in comparison with his or her co-twin were associated with insecure attachment characteristics such as avoidance of and

ambivalence toward the parent. While Sheehan and Noller's study did not specifically examine parenting styles as conceptualized by Baumrind (1991), it underscored the importance of how parenting behaviors affected the internal working model of attachment for the individual.

Cross cultural studies have also explored perceived parenting styles and their relationship with attachment for adolescents. Güngör and Bornstein's (2010) study utilized Turkish and Belgian youth between the ages of 14 and 18 to investigate peer attachment relationships using the measure Experiences in Close Relationships (ECR; Brennan et al., 1998) as well as perceptions of parental warmth and control. Their results indicated that for both cultures, perceived maternal warmth was associated with low attachment avoidance. Higher perceived parental control was associated with increased attachment avoidance for the Belgian group but not for the Turkish group. In both groups, perceptions of greater maternal and paternal psychological control were associated with greater attachment anxiety (Güngör & Bornstein, 2010). Sheehan and Noller's (2002) study and Güngör and Bornstein's study illustrated the relationship between perceptions of parenting behavior and later attachment outcomes for adolescents.

Reviewing literature on attachment and parenting behavior for children and adolescents provided useful information; however, it was also necessary to examine research on these variables in adult populations. Feeney and Noller's (1990) study of an undergraduate population examined attachment styles, attachment history, and current relationship variables. The authors concluded that participants endorsing a secure attachment style generally reported positive early family relationships (Feeney & Noller,

1990). In contrast, those reporting anxious-ambivalent attachment styles were more likely to report a lack of supportiveness in early family relationships (Feeney & Noller, 1990). Similarly, individuals reporting an avoidant attachment style were more likely to endorse items related to childhood separation from caregivers and mistrust of others (Feeney & Noller, 1990). These results indicated the relationship between adult attachment styles, perceptions of early family relationships, and the importance of the caregiver's responsibility in fostering healthy adult attachment.

In Neal and Frick-Horbury's (2001) study, which examined parental behavior and its relationship to attachment styles and adult relationships, the authors acknowledged that there were many parallels between the characteristics of authoritative, authoritarian, and permissive parents with the characteristics of secure, avoidant, and anxious-ambivalent attachment styles. Their results suggested a strong relationship between the characteristics of reported authoritative parenting styles and an adult secure attachment style: 92% of the participants reporting authoritative parenting styles also reported secure attachment (Neal & Frick-Horbury, 2001). This relationship is theoretically grounded when considering that the characteristics of an authoritative parent are similar to those required of a caregiver who is fostering a secure attachment in a child. For instance, "similar to the parent of a securely attached child, the authoritative parent is sensitive to the child's needs, does not use punitive discipline, and reasons with the child in a loving and affectionate manner" (Neal & Frick-Horbury, 2001, p.179). Conversely, an authoritarian parent is unresponsive and demanding toward the child and may use harsh punishment. Outcomes of this type of parenting parallel behavior in children who are characterized as having an avoidant attachment (Neal & Frick-Horbury, 2001). A parent

who is permissive in parenting style may yield a child who exhibits an anxious-ambivalent attachment pattern reflected in the child's immaturity, anxiety, and poor self-control (Neal & Frick-Horbury, 2001).

Attachment and its relationship to parenting behavior have also been considered in the context of dysfunctional parenting. Andersson and Perris (2000) acknowledged that dysfunctional parenting is a precursor of insecure attachments (as described by Bowlby's [1977] original conceptualization of insecure attachment) due to its influence on the development of internal working models, which are maladaptive and affect the individual's later interpersonal interactions. Andersson and Perris concluded that "parental emotional warmth seems to be the factor that protects most against the development of dysfunctional working models" (p. 408). The authors also concluded that experiences of rejection and overprotection appeared to be related to internal working models that are dysfunctional. Andersson and Perris provided an integrated model to understand the influence of parenting on attachment styles and related behavioral outcomes. In their model, dysfunctional parenting led to negative experiences of parental attitudes and insecure attachment that served to create dysfunctional internal working models of the self and others (Andersson & Perris, 2000). Dysfunctional internal working models of attachment influenced the individual to interact with the world in a biased way, thus creating undesirable behavioral outcomes (Andersson & Perris, 2000).

In a more recent study with college student, Heer (2008) examined retrospective reports of parenting styles and found that they positively predicted specific adult attachment styles. In Heer's study, the Parental Authority Questionnaire (PAQ; Buri, 1991) was utilized to examine retrospective perceptions of parenting styles and their



relationship to current adult attachment styles. Heer reported that, as expected, authoritative parenting style demonstrated a positive correlation with secure attachment in adulthood. Santorelli (2010) also examined perceived parenting style as it related to later attachment styles and the development of adult separation anxiety in a sample of college students. Results of Santorelli's study suggested a general relationship between retrospectively reported perceptions of negative parenting behaviors, current attachment anxiety (as measured by the ECR-R; Fraley et al., 2000), and symptoms of adult separation anxiety. While Santorelli's study focused more directly on a subset of adults experiencing symptoms of adult separation anxiety, it lent further support that perceptions of parenting styles affected later adult attachment and adjustment outcomes. It was clear from the literature base that parenting style and attachment style were intricately linked, such that the parent's behavior served to influence the development of an internal working model of attachment that is carried through adolescence and adulthood (Andersson & Perris, 2000; Feeney & Noller, 1990; Heer, 2008; Neal & Frick-Horbury, 2001).

### **Attachment and College Adjustment**

The transition into college can be a difficult one for many individuals. For others, it may be a seamless shift. The time period during which many young adults pursue college can be conceptualized as a developmental period, often called emerging adulthood (Arnett, 2000). During this time, individuals are seeking autonomy and separation from his or her families and he or she is forming new relationships with peers and possibly with romantic partners: "...dating is more likely to take place and the focus is less on recreation and more on exploring the potential for emotional and physical

intimacy” (Arnett, 2000, p.473). There are many available life directions an individual can take and independent exploration is greater during this time period. In the college environment, students are also embarking on new experiences in academics and beginning to accept different life responsibilities with emphasis on becoming a self-sufficient person (Arnett, 2000). Individuals entering a college environment must adjust to a variety of lifestyle changes including potentially living on campus away from parents for the first time, attending classes in formats unlike those from high school and middle school, joining a population of conceivably thousands of other students, and likely experiencing more general freedom than was previously experienced. Therefore, college adjustment can be viewed as an ongoing developmental task based on the individual’s ability to balance the new experiences and relationships he or she encounters. These challenges are associated with factors including his or her attachments to his or her primary caregiver from childhood and attachments to a romantic partner. Academic and interpersonal challenges may be met with adjustment difficulties in areas of mental health, academic achievement, peer relationships, and others. These adjustment periods can be explored through understanding the variables of adult attachment to primary caregiver from childhood, attachment to romantic partner, and retrospectively reported parenting style from childhood.

While there is an expected link between perceived parenting style and current attachment styles with primary caregiver as well as perceived parenting style and current attachment style with romantic partner (Feeney & Noller, 1990; Karavasilis et al., 2003; Neal & Frick-Horbury, 2001; Rosen & Rothbaum, 1993), it is likely that current attachment style in each of the relationships under study would also be related to overall

college adjustment. Overall college adjustment is based on Anton and Reed's (1991) conceptualization and includes the areas of anxiety, depression, suicidal ideation, substance abuse, self-esteem problems, interpersonal problems, family problems, academic problems, and career problems.

There is empirical support for the connection between current attachment and overall college adjustment (Frey et al., 2006; Hankin et al., 2005; Kenny & Donaldson, 1991; Mattanah et al., 2004). In forming internal working models of attachment, an individual carries forward expectations and perceptions of others' behaviors that affect dating relationships, social adjustment, and the overall quality of interpersonal relationships (Cummings-Robeu, Lopez, & Rice, 2009; Feeney & Noller, 1990; Neal & Frick-Horbury, 2001; Parade et al., 2010). In previous studies, college adjustment and adaptive functioning in college were found to be related to secure attachment style and secure attachment to parents (Kenny & Donaldson, 1991; Lapsley & Edgerton, 2002; Lapsley, Rice, & FitzGerald, 1990). Similarly, a secure attachment style has also been linked to greater social self-efficacy, career decision making self-efficacy, and life satisfaction in college student populations (Wright & Perrone, 2010). Insecure attachment styles have also been found to be related to difficulties in social competence and greater presence of psychological symptoms (Kenny & Donaldson, 1991; Wei et al., 2005). It is important to further explore college adjustment and its relationship with adult attachment style and retrospective reporting of parenting style. Understanding these relationships could yield useful information regarding the construct of attachment, the importance of parenting style, and how these could be altered or maintained to enhance overall college adjustment.

In general, secure attachment serves as a protective factor in development by promoting healthy family and peer relationships, ability to depend on others, greater levels of trust, cognitive flexibility, perseverance, greater self-esteem, and greater emotional adjustment (Ainsworth et al., 1978; Bowlby, 1969, 1973). Cicchetti and Toth (1998) acknowledged the importance of a secure attachment as one of several protective factors that might play a part in preventing development of problems of organization in socio-emotional, cognitive, representational, and biological systems. The primary caregiver's stability of responsiveness and warmth helps the child develop and maintain a sense of trust and security with which to approach the world and future interactions (Bowlby, 1969, 1973; Collins & Read, 1990; Neal & Frick-Horbury, 2001). While attachment schemas are thought to be somewhat stable throughout the lifespan (Collins & Read, 1990; Feeney & Noller, 1996; Scharfe & Bartholomew, 1994; Shemmings, 2006), Davila and Cobb (2004) noted that change is possible. Some predictors of changes in attachment orientations include major family life events such as the loss of a parent or child maltreatment (Davila & Cobb, 2004). Life events such as these are capable of changing an individual's attachment classification between childhood and adulthood. However, in adulthood, there is more evidence of stability of attachment patterns with some fluctuations in overall attachment security over time, with the most change occurring for secure attachments being rated as more secure over time (Davila & Cobb, 2004).

Various longitudinal studies have supported the stability of adult attachment style over short periods of time (one week to two years; Collins & Read, 1990; Feeney & Noller, 1996; Scharfe, & Bartholomew, 1994). Another longitudinal study on the

stability of attachment style from adolescence to adulthood was conducted by Zhang and Labouvie-Vief (2004). Their study's results indicated that over a six year interval, attachment style (as measured by the Relationship Questionnaire) remained relatively stable with some fluidity. In addition, fluctuations in attachment security were related to changes in coping and well-being (Zhang & Labouvie-Vief, 2004). Regarding attachment stability and college adjustment, Lopez and Gormley (2002) explored attachment patterns (measured using the Relationship Questionnaire and the ECR-R) in college students and his or her association with self-confidence, problem coping styles, and distress. Lopez and Gormley's study indicated similar rates of moderate stability over a six month time frame for attachment styles. The authors concluded that students maintaining a secure attachment style over the first year of college were more confident in abilities to engage in romantic relationships than were peers with stable insecure attachment styles. Individuals with stable secure attachment styles also demonstrated greater adaptive problem coping and improved regulation of negative emotions (Lopez & Gormley, 2002). Similarly, a stable secure attachment style was related to less distress as indicated by lower reported problems and lower reported depression symptoms (Lopez & Gormley, 2002).

In contrast, insecure attachment, as conceptualized using the dimensional model of anxiety and avoidance provided by Brennan et al. (1998), represents greater anxiety and greater avoidance. This is reflected in the individual's discomfort in getting close to others, struggle to depend on others, and fear of abandonment. Bowlby (1977) acknowledged the importance of the caregiver's behavior and responsibilities in affecting the individual's healthy development and later adjustment. In an insecure attachment, the

individual develops a sense of mistrust and likely anxiety that is carried into future relationships and interactions with others (Andersson & Perris, 2000; Bartholomew, 1990; Lopez & Gormley, 2002). In Lopez and Gormley's study, the effects of a stable insecure attachment were depicted. College students demonstrating a stable insecure attachment in his or her study exhibited more difficulty with effective coping skills using denial, avoidance, and escapism. Individuals with stable insecure attachment scores indicated more distress than those with stable secure attachment scores (Lopez & Gormley, 2002). Clearly, an individual's attachment schema is reflected in his or her adult relationships and how he or she interacts with the world (Bowlby, 1977). Features of these schemas include the individual's perception and image of others as well as the individual's perception of the self. As demonstrated by Lopez and Gormley's study, reflected internal working models can be observed in individuals' interpersonal relationships and overall adjustment.

Exploration of adult attachment styles with others as well as general adjustment provides a basis for understanding how attachments might affect adult adjustment in areas such as psychological, interpersonal, academic, and career functioning. Andersson and Perris' (2000) model is again useful to understand attachment and its relationship to adjustment. It clarifies a link between dysfunctional parenting, insecure attachment, development of dysfunctional internal working models, and the effect on behavioral outcomes that provides a basis to understand how attachment patterns might influence adjustment (Andersson & Perris, 2000). Once an individual has developed a dysfunctional internal working model due to an insecure attachment, the assumed model link leads to difficulty processing life events in a non-biased way (Andersson & Perris,

2000). Rather, the individual's information processing about others and the environment is based on the internal working model he or she has developed that may lead to maladaptive or maladjusted outcomes. In the current study, outcomes were considered in terms of overall college adjustment including areas of anxiety, depression, suicidal ideation, substance abuse, self-esteem problems, interpersonal problems family problems, academic problems, and career problems.

Valuable research in the area of adjustment as related to attachment theory can also be seen in studies involving adolescents. Given that adolescence is only a short step away from the transition into college, research in this area is useful in gaining a foundational understanding of possible adjustment difficulties related to attachment. McCormick and Kennedy (1994) indicated that in a sample of adolescents, current self-esteem was significantly related to attachment style. The results suggested that self-esteem was positively related to a secure attachment style as well as perceived independence and encouragement from parents (McCormick & Kennedy, 1994). Cooper, Shaver, and Collins (1998) acknowledged significant differences in symptomology, self-concept, and problem behaviors based on different reported attachment styles in an adolescent population. In their study, securely attached adolescents exhibited the greatest adjustment and insecurely attached adolescents demonstrated the poorest adjustment (Cooper et al., 1998). In a study exploring adolescent twins' differential perceptions of parental behavior, attachment style, and adjustment (described previously), Sheehan and Noller (2002) fully explored the connection between attachment styles and adolescent adjustment variables. The authors concluded that adolescents who exhibited insecure attachment also reported less confidence in themselves and others (Sheehan & Noller,

2002). This was consistent with Bowlby's (1982) acknowledgment of the two components contributing to insecure attachment. Sheehan and Noller discussed this finding in relationship to the internal working model the child has likely developed due to potentially experiencing the primary caregiver as unsupportive and rejecting.

Much of the research around attachment and college adjustment has been focused on the transition into college from adolescence utilizing freshman populations. Most of these studies found that attachment (to family, past attachment experiences, romantic partner attachment, peer attachment, etc.) affected freshman student adjustment including academic functioning, emotional adjustment, interpersonal functioning, psychological distress, and problem solving (Fass & Tubman, 2002; Lapsley et al., 1990). Lapsley et al. (1990) examined the adjustment to college and attachment. The authors acknowledged that attachment experiences might be more or less salient during different times in the college transition and experience. Lapsley et al. concluded that attachment to both parents and peers mediated social identity and personal identity in college as well as academic and personal-emotional adjustment. The authors found that academic adjustment was predicted by attachment to parents. Social adjustment, personal-emotional adjustment, and goal commitment were predicted by attachment to parents and attachment to peers (Lapsley et al, 1990). Lapsley et al.'s study provided groundwork for understanding the importance of attachment in predicting college adjustment in a variety of areas. Fass and Tubman (2002) also examined the influence of parental and peer attachment on college students' academic functioning, self-perceived competence and functioning, locus of control, self-esteem, and optimism. Fass and Tubman's findings supported a link between students reporting moderate to strong attachment to parents and



peers and increases in academic functioning and psychosocial functioning (e.g., greater self-esteem, more optimism, an internal locus of control, and an enhancement of the sense of self). It was also concluded that given the wide array of individual differences, it was important to acknowledge other possible moderating factors within the greater developmental system (Fass & Tubman, 2002).

Lapsley and Edgerton (2002) extended the connection between attachment and college adjustment by considering attachment style in general rather than specific attachment to parent or romantic partner. Lapsley and Edgerton also considered the challenge of separation and individuation as related to adult attachment style. It was extrapolated that when young adults have secure attachment patterns, he or she exhibits expected conflicted independence (freedom from excessive guilt, resentment, and anxiety) and he or she is able to make gains in individuation when he or she perceives his or her parents as nurturing and supportive (secure attachment; Lapsley & Edgerton, 2002). The authors concluded that there was an association between attachment styles using Bartholomew and Horowitz's (1991) categorical presentation of attachment styles and college adjustment. A secure adult attachment style was related to reported greater social and emotional adjustment in college (Lapsley & Edgerton, 2002). In contrast, fearful and preoccupied attachment styles were associated with poorer social and emotional adjustment (Lapsley & Edgerton, 2002).

In the college environment, drugs and alcohol, among other negative health behaviors, may be employed as coping tactics and can affect general adjustment (Prichard, Wilson, & Yamnitz, 2007). Given that substance use is encompassed in the measure of overall college adjustment by the College Adjustment Scales, its relationship

to attachment and overall adjustment must be considered. Kassel et al. (2006) expanded the research base on attachment and adjustment by considering broad adult attachment rather than specific parental attachment with the variable of substance use in a college population. While Kassel et al. acknowledged the many pathways that might contribute to use of substances, they concluded that attachment styles might play an important role. Kassel et al.'s results indicated that insecure attachment styles (anxious and avoidant) appeared to be related to dysfunctional attitudes and poorer self-esteem, which, together, were associated with greater frequency of drug use and drug use motivated by stress. In addition, an anxious attachment style was uniquely associated with cigarette smoking (Kassel et al., 2006).

Various studies have examined adjustment as specifically related to psychological distress and experiences of anxiety or depression (areas also encompassed under the measure of overall college adjustment). Hankin et al. (2005) noted that in terms of adjustment, adult attachment dimensions were highly related to psychological distress (depression and anxiety). In their study, insecure attachment (avoidant and anxious) orientations were predictive of depressive symptoms and anxious attachment was associated with anxiety symptoms (Hankin et al., 2005). The authors commented that low self-esteem and dysfunctional attitudes mediated the relationship between depression symptoms and dimensions of insecure attachment. However, the relationship between insecure attachment and anxiety symptoms was not mediated by either of these variables, suggesting that the attachment orientation alone made a unique contribution to the experience of psychological distress (anxiety; Hankin et al., 2005). Wei et al. (2005) reported similar results in a study exploring adult attachment and its association with

social self-efficacy, self-disclosure, loneliness, and depression in college students. Wei et al. concluded that social self-efficacy serves as a mediator variable between an anxious attachment orientation and reports of depression. However, it was acknowledged that social self-efficacy did not serve as a mediator variable between avoidant attachment orientation and reports of depression (Wei et al., 2005). These findings were consistent with attachment theory in that an anxious attachment orientation was associated with lower self-efficacy given that individuals with this orientation were generally more dependent on others and feared abandonment from others. Conversely, individuals who exhibited avoidant attachment patterns generally did not rely heavily on others and might have a greater sense of self-efficacy (Wei et al., 2005). In a similar study by Lopez and Fons-Scheyd (2008), the variable of adult attachment orientation was investigated in relation to balancing roles and depression in a college student population. The authors described role balance as the ability to become fully engaged in the performance of the roles required in the individual's environment involving attentiveness, engagement and mindfulness across roles (Lopez & Fons-Scheyd, 2008). Lopez and Fons-Scheyd concluded that attachment orientation and role balance were uniquely related and contributed to students' reports of depression. In addition, the interaction between role balance and avoidant attachment significantly contributed to explanations of variance in depression scores (Lopez & Fons-Scheyd, 2008). These studies indicated that while attachment orientation likely played a role in overall adjustment and psychological distress, other variables such as role balance, social self-efficacy, self-esteem, and attitudes affected the pathways by which attachment orientation affected an individual's level of depression or anxiety.

In understanding the connection between attachment and college adjustment, the primary foci of the existing literature base were on parental attachment and its relationship to college adjustment (Black & Schutte, 2006; Cummings-Robbeau et al., 2009; Frey et al., 2006; Kenny & Donaldson, 1991; Kenny & Rice, 1995; Lapsley et al., 1990; Melendez & Melendez, 2010; Parade et al., 2010). Less is known about other adult attachments such as that with the romantic partner. It is necessary to examine these adult attachments and their relationship to college adjustment variables. The literature base also focused heavily on attachment and its relationship to adjustment, specifically within the bounds of interpersonal functioning in relationships (Bartholomew & Horowitz, 1991; Feeney & Noller, 1990; Neal & Frick-Horbury, 2001). A final focus of the literature lies in understanding attachment and its relationship to psychological distress variables such as anxiety and depression (Hankin et al., 2005; Lopez & Fons-Sheyd, 2008; Wei, Mallinckrodt et al., 2005). While interpersonal functioning and psychological distress clearly represent essential domains in understanding college adjustment, other variables such as academic functioning and academic adjustment need to be assessed in relation to attachment. Variables such as these have been explored in younger populations (Cooper et al., 1998; Sheehan & Noller, 2002), although not fully examined in the college student population. Similarly, the variables of interpersonal functioning, psychological distress, and academic success/functioning need to be explored in conjunction with one another to better understand the relationship of overall college adjustment and attachment.

### **Adult Attachment to Primary Caregiver and College Adjustment**

In the current study, the variable of adult attachment was explored with consideration of both attachment to primary caregiver in adulthood and attachment to romantic partner. As suggested by Kenny (1987) and Lapsley et al. (1990), the attachment to primary caregiver (parents) during the college experience might serve as an important factor in understanding college student adjustment. Kenny and Donaldson (1991) explained that during the college years, individuals are seeking autonomy and experience less influence from his or her caregivers and family of origin. Erikson (1968) described one of the main challenges of this stage of development as seeking individuation. Attachment theory emphasizes the importance of having supportive figures that might provide a secure base but also encourage exploration (Bowlby, 1982). This highlights the necessity of adult attachments to primary caregivers in promoting adaptive functioning during the college years. Kenny and Donaldson (1991) explored the relationship between parental attachment and psychological and social functioning in first year college students. The authors utilized a measure of attachment based on Ainsworth et al.'s (1978) typologies of attachment styles as well as various measures of social and psychological functioning. Kenny and Donaldson concluded that participants with characteristics of secure attachment with parents generally reported greater levels of social competence, psychological well-being, and adaptive functioning. Secure attachment also appeared to be more salient in adaptive functioning, social competence, and psychological well-being for women than for men in the sample (Kenny & Donaldson, 1991). Their study indicate that the connectedness as well as fostering of individuation as seen in secure attachment to family members served to foster adaptive

functioning in young adulthood. In the current study, the variable of attachment to primary caregiver (in adulthood) was examined to understand its relationship to both retrospectively reported parenting style of the same caregiver and overall college adjustment.

Bridging off of Kenny and Donaldson's (1991) study, Kenny and Rice (1995) applied a model to understand parental attachment and how it might affect the developmental trajectory of college students and his or her adjustment. Kenny and Rice acknowledged that parental closeness might serve as a protective factor or source of security in promoting adaptive functioning and support for autonomy in college students. They explained that according to Bowlby's (1973) attachment theory, "individuals who are emotionally stable and self-reliant are likely to have parents who are available to provide support when needed, while also permitting and encouraging autonomy" (Kenny & Rice, 1995, p. 436). Similarly, they indicated that parental attachments might also influence coping resources via contributing to the individuals' internal working models of the self and other. A secure internal working model promotes psychological resilience while an insecure working model might increase psychological risk and maladaptive functioning (Kenny & Rice, 1995). In understanding this from a developmental perspective, an individual in the midst of transition to college or in college might use his/her internal working model of attachment to interpret disappointments, social situations, rejections, etc. (Andersson & Perris, 2000; Feeney & Noller, 1990; Sheehan & Noller, 2002). If the internal working model is secure, the individual will likely respond to the situational stresses associated with college adaptively and will likely be better able

to establish healthy relationships with others in the college environment (Kenny & Rice, 1995).

Various other authors have sought to explore parental attachment and its association with adjustment in the college population. Frey et al. (2006) utilized a college sample of women and men to explore parental attachment, relational patterns, and psychological distress. Frey et al.'s results indicated that secure parental attachment predicted lower psychological distress while insecure attachment to parents predicted greater psychological distress. In addition to parental attachment, the authors commented that other variables such as community relationships and peer relationships affected psychological distress in the sample (Frey et al., 2006). Black and Schutte's (2006) study also investigated parental attachment via young adults' reports of his or her childhood experiences with parents and how these might be related to feelings and behavior in romantic relationships. In general, the study demonstrated that secure parental attachment with the mother (as reported by a positive, loving relationship) resulted in more trusting of romantic partners and a greater likelihood of seeking comfort from partners during distress and opening up to partners (Black & Schutte, 2006). Black and Schutte concluded that secure parental attachment (as reported by a positive, loving relationship) with the father also resulted in greater willingness to seek comfort from romantic partners and more comfort in relying on romantic partners. Cummings-Robeau et al. (2009) continued the exploration of parental and adult attachment styles as they are related to specific interpersonal and relationship variables within a college population. Cummings-Robeau et al. demonstrated that both parental and adult attachment security

measures were associated with interpersonal sensitivity and aggression in interpersonal relationships.

More recently, authors have sought to explore parental attachment and its relationship to college adjustment cross-culturally (Melendez & Melendez, 2010). Melendez and Melendez (2010) examined college adjustment and its association with parental attachment among Caucasian, African American, and Latina females in a college population. The authors indicated that cultural influences played an important role in understanding college adjustment, specifically cultural variables might play a part in where students live (the support he or she receives academically and socially) as well as how salient the family is in the student's life. In their analyses, Melendez and Melendez suggested that "parental attachment predicts college adjustment differentially across race/ethnicity and across dimensions of adjustment," which include academic adjustment, social adjustment, personal/emotional adjustment, and goal commitment/institutional attachment (p.431). In a similar study examining parental attachment, Parade et al. (2010) examined attachment to parents and its association with social anxiety and ability to form friendships in a female college sample. Parade et al. concluded that college students who endorsed a secure attachment style with parents at the start of college also endorsed greater friendship outcomes (ease of making friends and satisfaction with friendships) at the end of his or her first semester. This result was consistent across the diverse populations (Caucasian Americans, African Americans, Asian Americans, and Hispanic/non-Caucasian Americans) included in the sample (Parade et al., 2010). Melendez and Melendez's (2010) study and Parade et al.'s (2010) study continue to



exemplify the importance of a secure attachment with parents or primary caregiver in promoting college adjustment.

### **Romantic Partner Attachment and College Adjustment**

One of the most prominent areas of study in understanding attachment and adjustment/functioning is how attachment is related to current interpersonal relationships and functioning within those relationships. As Arnett (2000) indicated, during the emerging adult phase and in the college transition, romantic and interpersonal relationships become more important to individuals; therefore, understanding attachment to these figures during the time period of college adjustment is essential. Trinke and Bartholomew (1997) emphasized that young adults might have many attachment figures including peers, romantic partners, family members, parents, etc. In Trinke and Bartholomew's study on hierarchies of attachment, they noted that in a college population, "mothers are given special status as attachment figures" (p. 623). However, as college students develop, he or she often becomes involved in romantic relationships and his or her partners may gain more importance and move up in the attachment hierarchy (Trinke & Bartholomew, 1997). Given this, it was necessary to examine attachment in various areas. The current study explored both adult attachment to primary caregiver as well as adult attachment to romantic partner.

Simpson (1990) provided a study giving the groundwork for understanding the association between attachment styles and romantic relationships. In a population of dating couples, Simpson concluded that for both men and women, a secure attachment style was associated with "greater relationship interdependence, commitment, trust, and satisfaction than were the anxious or avoidant attachment styles" (p. 971). In contrast,

anxious and avoidant styles of attachment were found to be related to greater negative emotions and fewer positive emotions (Simpson, 1990). This information was useful in understanding how attachment is related to interpersonal functioning, specifically, romantic relationship functioning and satisfaction. Given that romantic relationships often become more important and more intimate in emerging adulthood (Arnett, 2000) and often throughout the college transition and experience (Trinke & Bartholomew, 1997), it is necessary to understand how he or she may be affected by different attachment styles.

Bartholomew and Horowitz (1991) discussed adult attachment patterns based on Bowlby's (1982) original conceptualization of attachment as including both the individual's perceptions of self and perception of others using the attachment categories of secure, preoccupied, dismissing, and fearful. Bartholomew and Horowitz's study utilized a college population and examined certain characteristics of individuals with different attachment styles. They noted that secure attachment was correlated with balance of control in friendships, involvement in romantic relationships, self-confidence, and warmth. In contrast, individuals with fearful attachments more consistently endorsed interpersonal problems. Individuals with dismissing attachment styles reported lack of warmth in social interactions (Bartholomew & Horowitz, 1991). These areas (e.g., interpersonal problems and family problems) are considered in the realm of overall college adjustment and emerging adulthood (Anton & Reed, 1991; Arnett, 2000).

In a second related study, Bartholomew and Horowitz (1991) examined attachment ratings for individuals with peers and family and again found correlations with interpersonal problems. Bartholomew and Horowitz emphasized the importance of

understanding the two dimensions of attachment (perceptions of others and perceptions of self) in forming the attachment style and understanding the type of interpersonal problems the individual experiences. Individuals with attachment styles that are more related to negative perceptions of self (preoccupied and fearful) endorsed different interpersonal problems than did individuals with attachment styles more related to negative perceptions of others (Bartholomew & Horowitz, 1991). For example, individuals with fearful attachment more consistently endorsed social insecurity and lack of assertiveness. Individuals with fearful or dismissing attachment styles were more likely to endorse avoidance of relationships (Bartholomew & Horowitz, 1991). Their study exemplified the need to further understand attachment styles and their relationship to adjustment in a young adult population. Attachment patterns are clearly related to adjustment and functioning in interpersonal relationships (encompassed under overall college adjustment). The current study sought to more completely explore the outcomes and associations of adult attachment patterns with overall college adjustment.

Neal and Frick-Horbury (2001) echoed this important association and acknowledged that early attachments have long term effects on development and adult functioning, which likely relate to college adjustment. While the authors indicated that there was a significant relationship between reporting of authoritative parenting style and secure attachment, their findings suggested that only attachment style was predictive of intimacy patterns in close relationships (Neal & Frick-Horbury, 2001). Given that close romantic relationships emerge as primary components in young adults' hierarchies of attachment (Trinke & Bartholomew, 1997), it is necessary to understand this essential connection to attachment style with a romantic partner and how it is related to overall

college adjustment. Similarly, Feeney and Noller's (1990) study on attachment style, attachment history, and adult romantic relationships in an undergraduate population underscored the relationship between attachment style and current relationships. They noted, "Attachment style is likely to exert a very pervasive influence on the individual's relationships with others, because it reflects general views about the rewards and dangers of interpersonal relationships" (Feeney & Noller, 1990, p. 286). Their results suggested that a secure attachment style was strongly related to greater self-esteem and self-assurance as well as greater trust in interactions with others, which are aspects of overall college adjustment (Feeney & Noller, 1990). In contrast, individuals reporting avoidant attachment styles were more likely to avoid intimacy and those reporting anxious-ambivalent attachment styles scored high on scales reflecting dependence, preoccupation, and reliance on partners (Feeney & Noller, 1990). Feeney and Noller's study was especially relevant given that the population utilized was undergraduates. Feeney and Noller extrapolated that participants with secure attachment styles might be more "successful" in his or her relationships (p. 289).

In the current study, attachment to the romantic partner was explored in relation to its hypothesized link with overall college adjustment. As described previously, transition into college requires individuation and a gaining of separateness from parents (Arnett, 2000). This transition also requires some maintenance of connectedness with both family and other important social figures in the individual's life (Arnett, 2000; Kenny & Donaldson, 1991; Kenny & Rice, 1995). During the transition into the college population, forming interpersonal relationships and one's ability to relate effectively to others (romantic partners, peers, colleagues, etc.) is essential. It might be especially

important in mitigating the effects of stress and coping with stress during the college transition as well as promoting a sense of confidence and predictability about the environment (Darling, McWey, Howard, & Olmstead, 2007).

### **Perceived Parenting Style and College Adjustment**

As explained, attachment style and parenting style are intricately linked, given that the attachment style one develops is largely dependent on the caregiver's role and fulfillment of responsibilities (Ainsworth et al., 1978; Bowlby, 1973). However, while it was proposed that attachment style holds relatively stable after childhood (Collins & Read, 1990; Davila & Cobb, 2004; Feeney & Noller, 1996; Scharfe & Bartholomew, 1994; Zhang & Labouvie-Vief, 2004), experiences in relationships (such as that with the parent) might play an important role in understanding later college adjustment.

Dimensions of parental behavior as described by Baumrind (1991) might make a unique contribution above that of attachment style in how the individual interacts with his/her world, one's interpersonal relationships, and overall college adjustment. In the study by Neal and Frick-Horbury (2001) discussed previously, it was concluded that attachment style, over perceived parenting style, was a greater predictor of the quality of adult relationships. While these two dimensions are obviously related, this study demonstrated that attachment contributed more saliently to the relationship outcomes measured (Neal & Frick-Horbury, 2001). In terms of the current study, Neal and Frick-Horbury's (2001) study provided evidence that these two variables, while linked, might contribute uniquely to outcomes that might be observed in areas of college adjustment. Neal and Frick-Horbury commented, "Exactly what personal or interpersonal variables are affected by parenting styles awaits further research" (p. 182). In the current study, attachment style

and parenting styles were expected to contribute differently to overall college adjustment outcomes including anxiety, depression, suicidal ideation, substance abuse, self-esteem problems, interpersonal problems, family problems, academic problems, and career problems. These outcomes were considered in measuring overall college adjustment using Anton and Reed's (1991) College Adjustment Scales (CAS), which take into account these specific areas. The variable of parenting style, as reported retrospectively by college students, was examined in terms of levels of authoritarian, authoritative, and permissive parenting and its association with attachment, college adjustment to attachments, and overall college adjustment.

Sheehan and Noller's (2002) study on differential parenting of twins, attachment style, and adjustment, described previously, also included discussion specifically related to differential parenting and adolescent adjustment. Sheehan and Noller concluded that perception of mother as more controlling was related to reports of lower self-esteem and greater anxiety, which related to overall college adjustment. Furthermore, perceptions of the mother as less affectionate were related to greater anxiety (Sheehan & Noller, 2002). These results were primarily described in terms of the perception of being treated differently or unfavorably by parents and how this could lead to general psychological maladjustment. These results, which might also be reflected when examining overall college adjustment as areas of psychological adjustment (e.g., anxiety, depression, and self-esteem), were encompassed by the CAS. Sheehan and Noller's conclusions lent useful information in understanding how perceptions of parental behavior and style could affect later outcomes in adolescence as well as college students' overall adjustment.

Darling and Steinberg (1993) explained that in considering Baumrind's (1971) categories of parenting styles, the parent plays an integral role in socializing the child, providing parental authority, warmth, and helping the child develop a sense of personal identity. Darling and Steinberg emphasized the importance of the values and goals of the parents, the parenting practices employed, and the attitudes expressed toward the child. It was suggested that these specific variables interacted with the individual's willingness to be socialized and resulted in general outcomes (Darling & Steinberg, 1993). Parenting style is understood as a context in which socialization occurs and is affected by other variables such as parenting practices and parental beliefs. Darling and Steinberg acknowledged that encouraging autonomy might be specifically important in enhancing developmental outcomes. The authors indicated that authoritative parenting (linking both parenting style and parenting practice) is associated with developmental outcomes that are desirable while other parenting styles and practices such as permissive parenting and authoritarian parenting are associated with less positive outcomes (Darling & Steinberg, 1993).

Various other studies have sought to explore parenting and adjustment within an adolescent population (Lamborn et al., 1991; Steinberg et al., 1994; Weiss & Schwarz, 1996). Given that adolescents are in the developmental step prior to entering college, it was necessary to examine these studies. Weiss and Schwarz (1996) explored the variable of parenting style concurrently with adolescents' personality, academic achievement, adjustment and substance use, which are areas related to overall college adjustment. The authors utilized families with college students, mothers, fathers, and one sibling. In measuring parenting style, the authors utilized the Children's Report of Parental Behavior

Inventory (CRPBI; Schaefer, 1965) and constructed six parenting types (authoritative, democratic, nondirective, non-authoritarian-directive, authoritarian-directive, and unengaged) consistent with Baumrind's (1971) original typologies. Weiss and Schwarz found that adolescents from homes with unengaged parents (low on assertive control and low on supportive control) or with authoritarian-directive (high intrusive control) parents demonstrated more non-conforming, selfish, and maladjusted behaviors. He or she also exhibited greater consumption of alcohol (Weiss & Schwarz, 1996). Adolescents from authoritarian-directive homes "had a particular weakness in academic aptitude and achievement" versus adolescents from authoritative (high assertive and supportive control) and non-directive homes (high on directive control and assertive control and low on supportive control; Weiss & Schwarz, 1996, p. 2110). In contrast, adolescents with parents who were non-authoritarian were more conforming, open to experience, and also consumed less alcohol than the other groups. Weiss and Schwarz extrapolated on their results and suggested that given the positive outcomes associated with authoritative, non-directive, and democratic homes, parental supportiveness was likely to be a salient factor in predicting adjustment outcomes.

Lamborn et al. (1991) utilized a parenting style typology using continuums of control and supportiveness based on Macoby and Martin's (1983) theory extending from Baumrind's (1971) framework. Lamborn et al. placed 14-18 year old adolescents into groups based on his or her reports of experiences with his or her parents (authoritative, authoritarian, indulgent, or neglectful). These categories were associated with outcomes including school achievement, distress, problem behavior, and general psychosocial development, which are all similar areas of college adjustment measured by the CAS



(e.g., academic problems, anxiety, depression, family problems, and self-esteem problems). Lamborn et al.'s results indicated that adolescents from authoritative homes had generally better outcomes over all other groups on measures of adjustment.

Adolescents from authoritarian homes demonstrated good academic achievement but poor self-conception and self-reliance (Lamborn et al., 1991). In the category of low-control and high-supportiveness (indulgent parenting), there was an association with psychological adjustment such as social competence and self-confidence but poor work orientation, high drug use, and higher misconduct in school (Lamborn et al., 1991).

Steinberg et al. (1994) provided a one year follow-up study to Lamborn et al.'s (1991) study and again concluded that children raised in authoritative homes had better outcomes in competence, achievement, and social development as well as mental health over those raised in other types of homes (neglectful, authoritarian, or indulgent). These areas were also very similar to overall adjustment in college students measured by the CAS (e.g., academic problems, self-esteem problems, anxiety, depression, and interpersonal problems). Steinberg et al. noted that many of the same results from their prior study were obtained, suggesting that adjustment advantages and disadvantages were maintained or increased over time. Adolescents in the group with authoritative parents evidenced increases in academic self-conception and decreases in school misconduct. Adolescents from authoritarian homes also exhibited stability in previous findings of adjustment but reported greater internalized distress at the one year follow-up (Steinberg et al., 1994). Adolescents from indulgent homes continued to demonstrate academic weaknesses and misconduct but positive academic self-perception and low distress (Steinberg et al., 1994). Lastly, adolescents from the neglectful families evidenced

greater declines in work and school orientation, greater delinquency, and greater drug and alcohol use (Steinberg et al., 1994). Adjustment areas observed by Steinberg et al. were similar to those measured under overall college adjustment by the CAS (e.g., self-esteem problems, academic problems, substance use problems, anxiety, and depression).

The longitudinal aspects of Steinberg et al.'s (1994) study were especially relevant to the current study because the findings underscored the idea that developmental trajectories, based on parenting style, likely persist, are maintained, and might increase. Therefore, results that were seen in adolescents and high school-aged populations likely continue in college populations. The current study examined some of the same variables of overall college adjustment including anxiety, depression, suicidal ideation, substance abuse, self-esteem, interpersonal problems, family problems, academic problems, and career problems. It was expected that many of the similar associations with college students would be obtained (e.g., positive links between higher levels of authoritative parenting and greater overall positive college adjustment).

Several studies have sought to explore parenting styles and their effects on different variables within the college population that relate to his or her overall adjustment. Buri et al. (1988) conducted a study with a college population investigating parenting style (specifically authoritarian and authoritative styles) and self-esteem. The authors utilized Baumrind's (1971) typologies (authoritarian, authoritative, and permissive) in understanding differing parenting styles and strategies. Buri et al. correlated reports of parenting style by college students with his or her reports of self-esteem (a variable encompassed under overall college adjustment) and concluded that lower self-esteem was related to less goal oriented behavior, less personal responsibility,

and less personal control as well as greater dependence on others and fewer exploratory behaviors. Buri et al. extended the conclusions of previous studies in emphasizing that parental authority might positively or negatively impact self-esteem “depending on the type of authority that is exercised” (p. 20). It was concluded that authoritarian parenting resulted in lower ratings of self-esteem, likely because it reflected characteristics of restrictive, controlling, and punitive behavior on the part of the caregiver, which lowered the individuals’ sense of self-esteem (Buri et al., 1988). Conversely, authoritative parenting reflected clear and consistent boundary setting and reciprocal communication behaviors around decision making that recognized and respected the child’s contributions, thus increasing his or her self-esteem (Buri et al., 1988). Buri et al. acknowledged that parenting style was obviously affected by the child’s temperament and response to the parent’s style; the study provided significant evidence that authoritative parenting was more effective in the development of self-esteem than authoritarian parenting.

More recent studies in this area have examined parenting style and its relationship with academic achievement in a college population (Hickman et al., 2000; Strage & Brandt, 1999). Studies such as these were relevant given that overall college adjustment measured in the current study included academic problems. Strage and Brandt (1999) examined academic adjustment and success in relation to perceptions of parental behavior including autonomy granting, demandingness, and supportiveness. Strage and Brandt concluded that retrospective reports of parental behavior were predictive of the orientation he or she held toward academic work. When students reported parental behavior that included greater autonomy granting, greater demanding, and supportive

behavior (authoritative parenting), he or she also reported greater “mastery orientation toward their academic work” (Strage & Brandt, 1999, p. 154). Strage and Brandt described that there were no differences in the salience of parenting style in predicting these outcomes based on where the student lived (with or without parents), indicating that parenting styles influenced outcomes after students had moved away. Hickman et al. (2000) conducted a similar study that utilized the *Parental Authority Questionnaire* (PAQ; Buri, 1991) and inventories to assess adjustment to college including social adjustment, emotional adjustment, academic adjustment, academic achievement, self-esteem, and academic aptitude. With respect to parenting styles, Hickman et al. reported, “Authoritative parenting was found to have a positive impact on academic adjustment” (p. 49). Adjustment in Hickman et al.’s study was represented by how well the student was adapting to the college environment and the demands inherent within. Academic problems represented one of the subscales of overall college adjustment. Hickman et al. noted that adjustment in all areas was highly predicted by self-esteem. In considering other studies that have demonstrated the effect of parenting style and attachment style on self-esteem, these results were noteworthy. In a study by Mills (2010), similar variables of parenting style and academic outcomes were investigated. Mills concluded that parenting style was not significantly related to academic performance or academic GPA. While the results were somewhat mixed as to the importance of the variable of parenting style, it seemed to represent at least one facet of many contributors to college adjustment.

Some research has demonstrated that other variables such as gender might also explain differences in overall college adjustment including areas such as anxiety, depression, interpersonal problems, family problems, and academic problems (Enochs &

Roland, 2006). Enochs and Roland (2006) concluded that males had significantly higher overall adjustment levels (measured using the College Adjustment Scales) than females. Similarly, Nafziger, Couillard, Smith, and Wiswell (1998) documented small, though statistically significant differences in specific areas of adjustment on the College Adjustment Scales (e.g., anxiety, depression, family problems, academic problems, and self-esteem) for males and females in an undergraduate counseling center population. They concluded that overall, females reported more distress on these subscales (with the exception of the academic problems subscale; Nafziger et al., 1998). Therefore, gender was accounted for when conducting the analyses of the other variables contributing to college adjustment.

### **Conclusions**

The college student population is a unique population within our society. Therefore, it was of interest to study how the variables of parenting style and current attachments affected this population's overall college adjustment. It is clear that adjusting to college presents many challenges such as individuating from parents, possibly adjusting to living on a campus, forming new relationships with peers and potentially romantic partners, maintaining relationships with parents and caregivers, along with the inherent academic changes and challenges. The challenges to adjustment might be reflected in a variety of different areas including psychological problems (i.e., anxiety, depression, suicidal ideation, and substance abuse), psycho-social problems (i.e., self-esteem, interpersonal problems, and family problems), academic problems, and career problems, all facets of overall college adjustment. Factors that might play a role in affecting this adjustment include individuals' attachment orientations to others such as

his or her primary caregiver from childhood and his or her current romantic partner. Underlying attachment theory assumes that parenting behaviors and dimensions of parenting affect the individual's formation of internal working models of attachment and likely influence his or her current adult attachment patterns. Therefore, it was necessary to explore these individuals' perceptions of how he or she was parented. These variables (i.e., retrospective reports of parenting style, current attachment to romantic partner, and current attachment to primary caregiver from childhood) were expected to explain college students' overall adjustment. Prior to the current study, they had not been sufficiently examined in combination with one another. The current study sought to gather a greater understanding of his or her inter-relationships and contributions to one another and to overall college adjustment.

## **CHAPTER III**

### **METHODOLOGY**

#### **Purpose**

The purpose of this study was to investigate the relationship among perceived parenting style, adult attachment to primary caregiver, adult attachment to romantic partner, and overall college adjustment in a college student sample. This study utilized survey research methods to answer the research questions.

#### **Participants**

The current study consisted of 191 participants who were undergraduate students from three mid-sized university settings in the Rocky mountain region. Approximately 95% attended the primary institution ( $N = 13,000$  undergraduate students) where data were gathered. The other 5% came from another midsize university ( $N = 22,000$  undergraduate students) and two smaller community colleges in the same region ( $N = 5,000$ ). They were sampled from approximately 15 general education classes across the campuses including a variety of different fields and majors (e.g., psychology, business, nursing, education, biological sciences, etc.) utilizing a convenience sampling method during the academic year of 2011-2012. Participants volunteered to participate after hearing a brief introduction to the study at the beginning or end of a class (see Appendix A for introductory information). College student participants were also recruited via word of mouth in the community through snowball sampling and by contacting agencies

who frequently employ college students. There were 126 females (66%) and 65 males (34%). Recruited participants ranged in age from 18 to 64 with a mean age of 23.08 ( $SD = 6.09$ ). The median age of the sample was 21. Within the sample, 85% were between 18 and 26-years-old. The majority of the sample identified as Caucasian (69.6%), followed by other ethnicities: Hispanic (8.4%), African American (6.8%), Asian American (2.1%), multi-racial (9.4%), and other (2.6%). In the sample, 8.4% of the students were freshmen, 11.5% were sophomores, 36.1% were juniors, and 44% were seniors.

Participants responded to demographic questions related to their romantic relationship status (single, dating, engaged, married, divorced, or other), whether or not they were in a romantic relationship (yes or no), the number of months in the romantic relationship (if “yes”), the number of months since the last romantic relationship and the number of months it lasted (if “no”), and their identification of a primary caregiver (mother, father, grandparent, or other).

Regarding relationship status, 40.8% ( $n = 78$ ) of the sample were single, 40.8% ( $n = 78$ ) were dating, 13.6% ( $n = 26$ ) were married, 2.6% ( $n = 5$ ) were engaged, and 1% ( $n = 2$ ) were divorced. In the sample, 104 students (54.5%) indicated that they were currently in a romantic relationship, 77 were not in a current romantic relationship (40.3%), and 10 students (5.2%) indicated they had never been in a romantic relationship. Of those students in a current romantic relationship, the months in the romantic relationship ranged from 1 to 444; the mean number of months in the relationship was 43.78 ( $SD = 71.21$ ). The median number of months in a romantic relationship was 20.5 and 80% included participants reporting romantic relationships lasting between 1 and 48 months.



Of those who responded that they were not in a romantic relationship, the range of months since the most recent relationship was 1 to 84; the mean number of months since the last relationship ended was 13.64 ( $SD = 13.96$ ). The median number of months since the last relationship ended was 11. For 95% of the sample, the range of months since the most recent relationship was 1 to 36 months. Regarding the most recent relationship (for those who responded that they were not in a current romantic relationship), the range of number of months the most recent relationship lasted was 1 to 84; the mean number of months the most recent relationship lasted was 16.68 ( $SD = 15.31$ ). The median number of months of the most recent relationship was 12. For 95% of the sample, the most recent relationship lasted between 1 and 36 months.

In the sample, the majority of participants (66%) identified their mother as the primary caregiver when they were growing up. The next most frequently identified caregiver was the father, who was recognized as the primary caregiver for 26.2% of participants. For those who identified “other” as their primary caregiver, the most common specifications were brother, sister, aunt, self, family friend, “various foster parents,” or “no one” (see Table 1).

Table 1

*Identification of Primary Caregiver*

| Primary Caregiver | Number identifying this person as the primary caregiver. | Percentage identifying this person as primary caregiver. |
|-------------------|--|--|
| Mother            | 126  | 66.0%  |
| Father            | 50   | 26.2%  |
| Grandparent       | 3  | 1.6%   |
| Other             | 11   | 5.8%   |

For conducting multiple regression analyses, Green (1991) suggested an equation to determine the sample size required based on Cohen's (1988) power analytic approach. Given that there were three to seven explanatory variables in each regression analysis, the estimated minimum sample size was determined based on seven explanatory variables. Using Green's two step equation to determine sample size necessary with a medium effect size ( $R^2 = .13$  and  $f^2 = .15$ ), a sample size greater than 96 was sufficient for the current study (1.  $L = 6.4 + 1.65m - .05m^2$ , 2.  $N \geq L / f^2$  where  $f^2 = R^2 / 1 - R^2$  and  $m =$  the number of predictors. For exploratory factor analysis (EFA), Mundfrom, Shaw, and Ke (2005) recommended a minimum sample size of 130 for EFA with a variables-to-factors ratio of 6, wide communalities, and a coefficient of congruence  $K > .98$  ("excellent" criteria); this was a conservative estimate given that the variables-to-factors ratio in the current study was 10, which would likely require fewer participants based on Mundfrom et al.'s criteria. The current sample of 191 participants was adequate to meet the criteria.

## Measures

The measures utilized in this study included a demographic questionnaire (see Appendix B) and four self-report measures assessing the constructs of perceived parenting style, adult attachment (i.e., current adult attachment to primary caregiver and current adult attachment to romantic partner), and overall college adjustment (see Appendices C through H for demographic questionnaire and surveys given to participants).

### Parental Authority Questionnaire

For this study, the Parental Authority Questionnaire (PAQ; Buri, 1991) was utilized to measure participants on the variable of perceived parenting style based on Baumrind's (1971) parenting styles of authoritarian parenting, authoritative parenting, and permissive parenting. The PAQ is a 30-item instrument that consists of three 10 item scales measuring each of the typologies utilizing questions related to overall demandingness and responsiveness as it is characteristic of the given parenting style. Therefore, each subscale measures levels of the specified parenting style (e.g., the authoritarian scale measures greater or lesser levels of authoritarian parenting behavior) and each participant has a level on each subscale. The items were measured using a 5-point Likert rating response scale of 1 = *strongly disagree* to 5 = *strongly agree*. The measure yields three separate continuous scores (ranging from 10 to 50), each of which corresponds with one of the three parenting typologies for a participant if rating one caregiver and six separate continuous scores if the participant is rating both caregivers (e.g., mother and father)--the higher the score, the higher the rating of the respective typology (i.e., authoritarian, authoritative, permissive). For example, individuals

indicating higher scores on questions reflecting lower responsiveness and greater demandingness would yield a higher score on the typology of authoritarianism. In the current study, scale means were utilized to correspond with Likert scale ratings.

The PAQ was developed with the intent of measuring retrospective reports of parenting style (Buri, 1991; Buri et al., 1988). In developing the questionnaire, Buri (1991) utilized professionals working in the fields of psychology, education, sociology, and social work to judge each item based on Baumrind's (1971) typologies; items were included if more than 95% of the judges agreed that the item represented one of the typologies (Buri, 1991). Examples of items included on Buri's PAQ were as follows: "Whenever my mother told me to do something as I was growing up, she expected me to do so immediately without asking any questions" (demandingness; Authoritarian prototype); "While I was growing up my mother felt that in a well-run home the children should have their way in the family as often as the parents do" (Permissive prototype); "My mother always encouraged verbal give and take whenever I have felt that family rules and restrictions were unreasonable" (responsiveness; Authoritative prototype). Buri provided normative information for the PAQ for both college students and high school students. For the college student sample ( $N = 171$ ) with a mean age of 18.8, normative data were reported as follows: mother's permissiveness ( $M = 25.43$ ,  $SD = 5.73$ ), mother's authoritarianism ( $M = 26.97$ ,  $SD = 7.12$ ), mother's authoritative prototypeness ( $M = 37.34$ ,  $SD = 5.60$ ), father's permissiveness ( $M = 25.12$ ,  $SD = 5.39$ ), father's authoritarianism ( $M = 28.74$ ,  $SD = 7.98$ ), and father's authoritative prototypeness ( $M = 35.56$ ,  $SD = 6.57$ ). For the high school student sample ( $N = 108$ ) with a mean age of 17.4, normative data were reported as follows: mother's permissiveness ( $M = 17.92$ ,  $SD = 4.87$ ), mother's authoritarianism

( $M = 21.49$ ,  $SD = 5.23$ ), mother's authoritativeness ( $M = 24.69$ ,  $SD = 5.30$ ), father's permissiveness ( $M = 16.64$ ,  $SD = 4.46$ ), father's authoritarianism ( $M = 22.78$ ,  $SD = 6.02$ ), and father's authoritativeness ( $M = 23.01$ ,  $SD = 5.78$ ).

Buri (1991) examined reliability for the scores on the PAQ using test-retest procedures and internal consistency procedures. To explore test-retest reliability, Buri utilized students from an undergraduate psychology class ( $N = 61$ ) with a mean age of 19.2 years who completed the PAQ twice with a test-retest interval of two weeks. The test-retest reliability coefficients for his sample were .81 (mother's permissiveness), .86 (mother's authoritarianism, and .78 (mother's authoritativeness) for the version that queried about perceived parenting style of the mother and .77 (father's permissiveness), .85 (father's authoritarianism), and .92 (father's authoritativeness) for the version that queried about perceived parenting style of the father (Buri, 1991). To examine internal consistency, Buri (1991) utilized undergraduate students ( $N = 185$ ) with a mean age of 18.7 years. Cronbach alpha coefficients for scores with this sample on the three scales were .85 (mother) and .87 (father) for authoritarianism, .75 (mother) and .74 (father) for permissiveness, and .82 (mother) and .85 (father) for authoritativeness parenting styles (Buri, 1991).

Buri (1991) examined discriminant-related validity evidence and criterion-related validity evidence for scores on the PAQ. In exploring discriminant-related validity evidence, it was expected that if the PAQ provided measurement of the three specific typologies, responses should be divergent among the three scales of prototypic parenting styles. In utilizing undergraduate students ( $N = 127$ ), Buri noted that as expected, each score was inversely related to the others (e.g., authoritarianism inversely related to both

permissiveness and authoritativeness) for both mother and father versions. To examine criterion-related validity evidence, Buri explored the criterion of parental nurturance (parental warmth) as this was considered an important dimension of Baumrind's (1971) conceptualization of parenting styles. This aspect of validity was explored using a Parental Nurturance Scale (Buri et al., 1988), expecting that authoritative style would be positively related and authoritarian style would be negatively related to this criterion. Buri (1991) utilized undergraduate students ( $N = 127$ ) who were administered both the PAQ and the Parental Nurturance Scale. Results were as expected: participants reporting a perceived authoritative parenting style were highest in reporting parental nurturance and authoritarian parenting style reports were inversely related to reports of parental nurturance (Buri, 1991). Criterion-related validity evidence was also examined by Buri et al. (1988) where the authors considered adolescent self-esteem and parenting style. Results from their study indicated consistency with Baumrind's (1971) original statements regarding children of authoritative parents. Specifically, authoritative parenting was positively related to greater adolescent self-esteem and authoritarian parenting was inversely related to adolescent self-esteem (Buri et al., 1988).

Buri (1991) also considered whether or not the PAQ was subject to social desirability response bias by having undergraduate participants ( $N = 69$ ) complete the PAQ along with Crowne and Marlow's (1960) social desirability scale (Marlowe-Crowne Social Desirability Scale). Buri concluded that none of the correlational values obtained in this analysis was statistically significant, suggesting that "the PAQ does not appear to be vulnerable to social desirability response biases" (p. 117). See Appendix C for Buri's (1991) PAQ. Many other authors have utilized the PAQ with a college student

population in a variety of studies (e.g., Craddock, Church, & Sands, 2009; Dominguez & Carton, 1997; Kim & Chung, 2003; McKinney, Donnelly, & Renk, 2008; Shorey, Snyder, Yang, & Lewin, 2003; Timpano, Keough, Mahaffey, Schmidt, & Abramowitz, 2010).

### **Experiences in Close Relationships– Revised**

For this study, the Experiences in Close Relationships-Revised (ECR-R; Fraley et al., 2000) was used to measure the variable of adult attachment to romantic partner. The original Experiences in Close Relationships measure (ECR; Brennan et al., 1998) was developed to assess attachment style levels as conceptualized by Ainsworth et al. (1978) based on the two orthogonal dimensions of anxiety and avoidance. Brennan et al. (1998) created the ECR using a factor analysis of all existing dimensional measures of attachment style (including 14 self-report attachment inventories). Through analyzing item responses from 1,084 undergraduate students on 323 items, a two-factor solution accounting for 63% of the variance emerged; the two factors (anxiety and avoidance) supported Ainsworth et al.'s original conceptualization of attachment (Crowell, Fraley, & Shaver, 1999; Shaver & Mikulincer, 2002). The ECR consists of 36 items obtained after the factor analysis and removal of non-redundant items. The 36 items retained had the highest absolute-value correlations with one of the two higher order factors (anxiety or avoidance 18 items for each dimension), each with an alpha coefficient of at least .90 with the corresponding higher order factor based on the sample. The scale used a 7-point Likert-type scale ranging from 1 = *strongly disagree* to 7 = *strongly agree* (Brennan et al., 1998).

Fraley et al. (2000) sought to improve the psychometric properties and measurement precision of the scores produced by the ECR. It was noted that the ECR had difficulty in assessing the “secure” end of the dimensions with the same degree of precision with which it assessed the “insecure” end. Fraley et al. used an item response theory analysis of existing measures including the ECR, Adult Attachment Scales, and the Relationship Questionnaire (Fraley et al., 2000). Through re-analysis of the same 323 ECR items using factor analysis to determine best markers of anxiety and avoidance, the ECR-R was developed. The authors noted that there was high overlap between ECR items and ECR-R items; 13 of 18 anxiety items are the same and 7 of 18 avoidance items are the same although the ECR-R improved on the original measure, especially in discriminating between anxious and avoidant attachment at the lower (secure) ends (Fraley et al., 2000).

The ECR-R measurements still allow for consideration of categories of attachment (secure, preoccupied, dismissing-avoidant, and fearful-avoidant). However, Fraley (2005) noted the continued debate over whether categorical classification should be used over measures of dimensions. Fraley supported his original argument that categorization of attachment data was not reflective of individual differences and the variation in attachment patterns. Therefore, a dimensional model that assessed secure to insecure attachment and reflected the individual variations in attachment was a more accurate and reflective way to portray and understand variation in adult attachment patterns (Fraley & Waller, 1998).

Similar to the ECR, the ECR-R contains a total of 36 items (18 items for each scale [anxiety and avoidance]) measured on a 7-point Likert-type scale ranging from 1 =



*strongly disagree* to 7 = *strongly agree* for a total range of summed scores on each subscale from 18 to 126. In the current study, scale means were utilized to correspond with Likert scale ratings. Greater scores on anxiety and avoidance subscales reflected a greater insecure level of attachment. In addition, scores on anxiety and avoidance scales were combined to provide an overall level of secure attachment; lower scores indicated lower levels of secure attachment (Fraley et al., 2000), which was used for the current study. Some sample items included “I’m afraid that I will lose my partner’s love” (attachment related anxiety), “I often wish that my partner’s feelings for me were as strong as my feelings for him or her” (attachment related anxiety), “I prefer not to show a partner how I feel deep down” (attachment related avoidance), and “I find it difficult to allow myself to depend on romantic partners” (attachment related avoidance; Fraley et al., 2000).

Fraley (2005) provided normative information based on 22,000 online participants with a mean age of 24 (total participants ranging from age 20 to age 60). Fraley reported summary statistics for the entire sample (see Table 2).

Table 2

*Normative Information*

|                | Avoidance             | Anxiety               |
|----------------|-----------------------|-----------------------|
| Overall Sample | $M = 2.93, SD = 1.18$ | $M = 3.64, SD = 1.33$ |
| Male           | $M = 2.88, SD = 1.15$ | $M = 3.64, SD = 1.33$ |
| Female         | $M = 2.95, SD = 1.19$ | $M = 3.64, SD = 1.33$ |

*Note.* Means and standard deviations are based on Likert scale scores ranging from 1 to 7. *Source:* Fraley (2005).

Various authors have examined psychometric properties for scores based on the ECR-R. Through use of test-retest reliability with a six week time interval, Sibley and Liu (2004) concluded that scores from both subscales were stable and reliable: 86% of the variance in scores was shared over the two administration times. In addition, internal consistency reliability coefficients of scores with an undergraduate sample for both subscales on both administrations were greater than .90 (Sibley & Liu, 2004). Sibley, Fischer, and Liu (2005) also examined reliability using test-retest with a three-week interval with 300 undergraduate participants and again found reliability coefficients over .90 for scores on both subscales (anxiety and avoidance) of the ECR-R with their sample.

Sibley and Liu (2004) explored temporal stability and the factor structure of scores from the ECR-R utilizing a sample ( $N = 142$ ) of undergraduate students. Sibley and Liu's factor analysis confirmed the two-factor solution found by Fraley et al. (2000) over a one or three factor solution, supporting the ECR-R's measurement of two dimensions: anxiety and avoidance. In another study, Sibley et al. (2005) again confirmed the factor structure using confirmatory factor analysis utilizing a sample of 300 undergraduate students, providing further support for the identified dimensions of anxiety and avoidance. Fairchild and Finney (2006) conducted a confirmatory factor analysis on the ECR-R as well utilizing undergraduate students ( $N = 429$ ) and further supported the two-factor solution (originally hypothesized dimensions of anxiety and avoidance) though the authors noted that several items showed some redundancy and co-variation between scales.

In examining criterion-related validity evidence supporting use of the ECR-R, Sibley et al. (2005) used the ECR-R anxiety and avoidance scores to predict subjective

perceptions of others (intimacy and interaction quality) in a social interaction diary with 82 participants. The authors found that the ECR-R predicted significant portions of variance in diary ratings of anxiety and avoidance in interactions with romantic partners (Sibley et al., 2005). Fairchild and Finney (2006) administered the ECR-R and the following criterion measures to 429 participants (Touch Scale, Brennan et al., 1998; UCLA Loneliness Scale-Version 3, Russell, 1996; The Social Provisions Scale [SPS], Cutrona & Russell, 1987); The Penn State Worry Questionnaire [PSWQ], Meyer, Miller, Metzger, & Borkovek, 1990). The authors concluded that all hypothesized relationships between the ECR-R and these measures were supported. The ECR-R high Avoidance subscale scores were positively related to Touch Avoidance scores on the Touch Scale ( $r = .51$ ) and scores on the ECR-R Avoidance subscale were inversely related to scores on the Affectionate Proximity subscale of the Touch scale ( $r = -.51$ ; Fairchild & Finney, 2006). Regarding loneliness, the authors found a positive relationship between ECR-R Anxiety subscale scores and Avoidance subscale scores with the loneliness scale scores ( $r = .53$  and  $r = .36$ , respectively; Fairchild & Finney, 2006). As expected, Fairchild and Finney found that there was a negative relationship between ECR-R Anxiety and Avoidance subscale scores with the Social Provisions scale ( $r = -.43$  and  $r = -.45$ , respectively). In addition, ECR-R Anxiety subscale scores were positively related to Penn State Worry Questionnaire scores ( $r = .39$ ; Fairchild & Finney, 2006). See Appendix D for the ECR-R (Fraley et al., 2000).

### **Experiences in Close Relationships- Relationship Structures Questionnaire**

For the current study, the variable of adult attachment to primary caregiver was measured using the Experiences in Close Relationships-Relationship Structures Questionnaire (ECR-RS; Fraley et al., 2011). This measure was designed to assess attachment dimensions in multiple contexts. While Fraley et al. (2000) acknowledged that the ECR-R could be used to assess attachment across various relationships by changing the primary attachment figure utilized in the questionnaire (e.g., “romantic partner” to “friend” or “primary caregiver”), assessing attachment across multiple relationships resulted in a greater amount of items to which participants must respond to (e.g., responding to the ECR-R twice regarding two attachment figures). Therefore, Fraley et al. (2011) presented a shorter measure allowing for assessment of attachment across multiple relationships, which lessened the burden on participants and did not sacrifice measurement precision. In addition, Fraley et al. acknowledged that there was some variation that had been observed in measuring attachment across different relationships (e.g., parent, romantic partner), suggesting variability in internal working models of attachment. The ECR-RS was developed to “assess attachment-related anxiety and avoidance in four kinds of relationships: relationship with mother, father, romantic partners, and friends” (Fraley et al., 2011, p. 616). Fraley et al. utilized a modified version of the ECR-R to create the ECR-RS. Items from the ECR-R that had good item discrimination values were included and items were excluded if they focused solely on a romantic relationship or were redundant with other items. The resulting ECR-RS contained nine items selected in modified form from the ECR-R that assessed attachment

in each of the four domains, had good item discrimination, but did not focus specifically on romantic relationships (Fraley et al., 2011). Items were rated on a 7-point Likert-type scale ranging from 1 = *strongly disagree* to 7 = *strongly agree* with a range of summed scores from 9 to 63. In the current study, scale means were utilized to correspond with Likert scale ratings. Higher scores on subscales reflected greater attachment-related anxiety and avoidance (insecure attachment) while lower scores indicated less attachment-related anxiety and avoidance (secure attachment). In the current study, the ECR-RS was utilized to assess the level of attachment to the participant's identified primary caregiver from childhood (see Appendix E). Some sample items included "I usually discuss my problems and concerns with this person" (attachment related avoidance), "I talk things over with this person" (attachment related avoidance), "I'm afraid this person may abandon me" (attachment related anxiety), and "I often worry that this person doesn't really care for me" (attachment related anxiety; Fraley et al., 2011).

To examine reliability and validity, Fraley et al. (2011) collected data from 21,838 participants with an average age of 31.5 years ( $SD = 11.28$ ). Fraley et al. conducted exploratory factor analyses and concluded that the retained items supported a two factor solution (anxiety and avoidance) accounting for 69% of the variance. In a second study designed to explore the association between the ECR-RS measure of attachment in specific domains to the less contextualized ECR-R measure of attachment, Fraley et al. utilized 388 participants with a mean age of 22.59 ( $SD = 6.27$ ). The authors reported alpha reliabilities for scores on each dimension and each domain assessed (mother, father, partner, and best friend). Using this sample for scores on the anxiety scale, alpha reliabilities were .84, .87, .83, and .83 for mother, father, partner, and best

friend, respectively; for scores on the avoidance scale, alpha reliabilities were .91, .92, .81, and .85 for mother, father, partner, and best friend, respectively. These values suggested good internal consistency in measuring anxiety and avoidant attachment domains despite the limited number of items. In examining correlations between the ECR-RS and the ECR-R, Fraley et al. reported high correlations between the ECR-RS subscale measuring partner attachment-related anxiety and the ECR-R attachment-related anxiety ( $r = .66$ ), the ECR-RS subscale measuring partner attachment-related avoidance and the ECR-R attachment-related avoidance ( $r = .56$ ; as expected), and positive though weak correlations for the other ECR-RS subscales (mother, father, friend, and global) and the ECR-R, also as expected. Fraley et al. explained that the ECR-R might be used as an overall measure of attachment in relationships but mostly captured variance related to romantic partner attachment. In contrast, the ECR-RS was more specific in measuring other domains of attachment-related avoidance and attachment-related anxiety (e.g., attachment to mother, father, and friend).

### **College Adjustment Scales**

For the present study, the College Adjustment Scales (CAS; Anton & Reed, 1991) was utilized to examine overall adjustment for college students. The CAS was originally developed as a rapid screening method to identify students who might be in need of counseling assistance, specifically to identify common developmental and psychological problems (Anton & Reed, 1991). The CAS was developed using an intake checklist of 12,000 students attending a college counseling center. The authors conducted two principal components analyses, which resulted in a nine factor solution and a seven factor solution. The authors utilized professional opinions regarding assessment needs and an

extensive literature review to identify behavioral components for each of the scales. This yielded an item pool that was subsequently reviewed by an expert panel for biased questions and resulted in the final questionnaire (Anton & Reed, 1991). The CAS final version consisted of nine factors (adjustment areas), a total of 108 items, and 12 items per each major adjustment area. The nine adjustment areas (subscales) were anxiety, depression, suicidal ideation, substance abuse, self-esteem problems, interpersonal problems, family problems, academic problems, and career problems. Participants responded to each item using a 4-point Likert-type scale ranging from F = *false, not at all true* to V = *very true*; greater scores indicated greater adjustment difficulty in the given area (Anton & Reed, 1991). The total range of raw scores was from 108 to 432. The CAS yielded percentile scores and normalized T-scores for each scale and the authors suggest that a T score above 60 on any scale indicated a possible adjustment difficulty worthy of further evaluation or intervention (Anton & Reed, 1991). However, higher overall scores suggested a lower level of overall college adjustment. Some sample items included “I have poor study skills,” “I have close and satisfying relationships,” “Lately, I feel sad and blue most of the time,” “My family tries to run my life,” “I don’t have any particular strengths or talents,” and “I think I’m showing the signs of a lot of stress” (Anton & Reed, 1991).

Anton and Reed (1991) provided normative data using 1,146 university students aged 17-65-years-old (less than 10% of the sample was over the age of 30). It was noteworthy that the normative sample only included 2% of graduate students and did not include data for a variety of different ethnic groups. In addition, some of the constructs measured on the CAS (e.g., self-esteem) as well as adjustment in general might not be

equivalent cross-culturally; therefore, some reviewers suggested that the CAS be used with some caution in screening individuals cross-culturally (Martin, 1998; Star, 1998). However, Anton and Reed noted that their normative sample closely reflected racial patterns in college enrollment nationally and well represented geographic region and gender. Anton and Reed acknowledged that only 10% of the normative sample was over age 30 and suggested interpreting with caution for individuals over this age.

Anton and Read (1991) considered reliability of scores on the CAS in terms of internal consistency using a sample of 224 college students from several different universities; internal consistency reliability coefficients were reported for scores on each of the nine scales: anxiety ( $\alpha = .89$ ), depression ( $\alpha = .84$ ), suicidal ideation ( $\alpha = .86$ ), substance abuse ( $\alpha = .83$ ), self-esteem problems ( $\alpha = .86$ ), interpersonal problems ( $\alpha = .80$ ), family problems ( $\alpha = .84$ ), academic problems ( $\alpha = .87$ ), and career problems ( $\alpha = .92$ ). Anton and Reed did not provide other reliability estimates such as test-retest reliability. In examining the factor structure for the CAS, Campbell and Prichard (2000) completed a principal components analysis on the nine subscales. The authors reported significant multicollinearity between the nine scales and one factor (overall college adjustment) accounted for 57% of the total variance (Campbell & Prichard, 2000). They suggested that an overall adjustment score on the CAS might be most useful in understanding overall college adjustment rather than specific scores from the nine subscales (Campbell & Prichard, 2000). Multiple empirical studies have opted to use *t*-scores on the individual adjustment scales to determine an overall adjustment score (Enochs & Roland, 2006; Eschun, 2006; Klein & Pierce, 2009). While the nine subscales provided additional information for the purposes of this study, the primary dependent



variable was an overall adjustment score on the CAS where higher scores indicated greater difficulties in adjustment and lower scores indicated less adjustment difficulty.

Anton and Reed (1991) considered the validity of scores from the scales using convergent and discriminant validity studies. The CAS subscales were compared to commonly used measures of constructs such as anxiety (State-Trait Anxiety Inventory), hopelessness (Beck Hopelessness Scale), personality (NEO-Personality Inventory), depression (Beck Depression Inventory), substance abuse (Michigan Alcoholism Screening Test; Drug Abuse Screening Test), self-esteem (Multidimensional Self-Esteem Inventory; Self-Expression Inventory), family adaptability (Family Adaptability and Cohesion Evaluation Scales III), and career development (Career Decision Scale). The authors reported high convergent validity derived from high correlations ( $r_s = .64-.80$ ) between CAS subscales and other measures examining similar constructs and low correlations between CAS subscales and measures examining dissimilar constructs (Anton & Reed, 1991). Campbell, Palmieri, and Lasch (2006) examined the concurrent validity-related evidence supporting scores from the CAS using comparison of CAS scales with the College Maladjustment scale of the Minnesota Multiphasic Personality Inventory-2 (MMPI-2). Campbell et al. reported that nearly all of the scales on the CAS (eight of nine) correlated in the expected direction with the College Maladjustment Scale on the MMPI-2 (Campbell et al., 2006). Nafziger, Couillard, and Smith (1997) examined evidence of validity associated with scores from the CAS in terms of its clinical utility through examination of 748 CAS profiles compared with clinical interviews conducted on the same individuals by counseling center staff. The CAS profiles were then rated based on usefulness in confirming the interviewers' impressions as well as in providing

new information. Nafziger et al. reported that “the ratings of the ability of the CAS to confirm the clinical impressions and conclusions of the Counseling Center interviewers were generally favorable” (p. 517). See Appendix F for the CAS (Anton & Reed, 1991).

Students were provided with the previously described measures along with a demographic form (see Appendix B) that requested participants to provide information related to their gender age, ethnicity, college they were currently attending, current year in college, number of years in college, relationship status, and identification of their primary caregiver in childhood.

### **Research Design**

This study was conducted using a cross-sectional, non-experimental design. Gall, Gall, and Borg (2007) explained that in cross-sectional designs, data are obtained at one point in time from the intended sample. Data were collected from the undergraduate college student population during a four month time period. Benefits to cross sectional designs are that they negate the possibility of sample attrition and allow for data to be collected relatively quickly (Gall et al., 2007). Limitations for cross-sectional designs are that the data might not be fully representative of other populations as populations can change over time. Thus, a cross-sectional design does not allow for consideration of such changes that happen over time (Gall et al., 2007).

### **Procedures**

Prior to data being collected, approval to conduct this study was obtained from the Institutional Review Board (IRB; see Appendix G). Data for this study were collected in person from students volunteering (based on previously discussed recruiting procedures) to answer a set of questionnaires within a survey packet. Participants who were recruited

via presentation in undergraduate courses were able to complete surveys at the beginning or end of their class period. Participants contacted in the community or recruited via word of mouth were able to complete the surveys at the time they were recruited in person. Participants were also given a brief introduction (see Appendix A) to the study prior to beginning completion of measures. Students were asked to provide informed consent by reading the consent form and then subsequently participating in the study (see Appendix H). Students were provided with the previously described measures along with a demographic form (see Appendix B) and were asked to complete them using instructions provided on each measure. Measures were presented in a counter-balanced order with each possible combination of surveys being equally distributed in order to lower the risk of an order effect and increase the internal validity of this study. Data were collected in an anonymous manner from participants. Therefore, the measures and the demographic form were connected by a random identification number provided and written on each measure before administration. Informed consent forms remained with participants and were not connected to survey packets in any way, allowing for the data to be completely anonymous. Students were provided with a debriefing summary (see Appendix I) after they handed in their packet of assessment materials; the debriefing statement included referral information for counseling services should any concerns arise. It took participants approximately 10-20 minutes to complete the survey packet. Data were securely stored in a locked office in the primary researcher's advisor's office. Data will be stored for five years after the completion of the study.

The PAQ was administered to the participants to rate both the mother and father. In this study, participants were asked to rate whomever (mother or father or other) they

identified (on the demographic form) as their “primary caregiver” when they were growing up. Similarly, the ECR-RS was used to assess levels of secure attachment with mother and father. In the current study, participants were asked to rate their level of attachment to their mother, father, and/or another primary caregiver if applicable. If participants responded that they had never been in a romantic relationship and were not in a current romantic relationship, they were excluded from the analyses. All questionnaires stipulated that they might be administered in a group or an individual format (Anton & Reed, 1991; Buri, 1991; Fraley et al., 2000); therefore, it was possible to administer the packets of questionnaires to a class of students or to individuals who volunteered to participate.

Participants were provided with information on how to contact the researcher should they have further questions or were interested in obtaining results of the study at a later date; this information was included on the informed consent form. Information from the measures was entered into a statistical analysis program in order to conduct subsequent analyses. Measurement packet information was only identified by the participant identification number; therefore, students’ data remained completely anonymous throughout the testing and analysis process.

## **Variables**

**Independent variables.** The independent variables for the first part of the study were perceived parenting style, current adult attachment to romantic partner, and current adult attachment to primary caregiver from childhood. The independent variable of perceived parenting style was measured continuously based on the three areas conceptualized by Baumrind (1971): authoritative parenting, authoritarian parenting, and

permissive parenting. This independent variable of perceived parenting style was measured using Buri's (1991) Parental Authority Questionnaire (PAQ) based on a continuum of responses for each style of parenting, yielding three scales: greater or less authoritarian characteristics, greater or less authoritative characteristics, and greater or less permissive characteristics. Questions assessing each of these parenting styles were related to the underlying theoretical continuum of demandingness and responsiveness characteristic of each of the styles. The independent variables of current adult attachment style (either to romantic partner or to primary caregiver) were based on Ainsworth et al.'s (1978) original conceptualizations of the two dimensions of anxiety and avoidance, which contribute to secure or insecure attachment orientations. Participants' attachment orientations were measured continuously using the Experiences in Close Relationships-Revised scale (ECR-R; Fraley et al., 2000) and the Experiences in Close Relationships-Relationship Structures scale (ECR-RS; Fraley et al., 2011). The ECR-R was used to measure adult attachment to a romantic partner. The ECR-RS was used to measure adult attachment to primary caregiver.

The first two research questions sought to understand the relationship between perceived parenting style and current adult attachment to primary caregiver and romantic partner. The independent variable for both of these research questions was the retrospective report of perceived parenting style utilizing Buri's (1991) Parental Authority Questionnaire.

The final research question explored the relationship between current adult attachment to primary caregiver and current adult attachment to romantic partner. The

independent variable for this question was adult attachment to primary caregiver from childhood measured with the ECR-RS.

**Dependent variables.** The first part of the study queried the relationship among the variables of perceived parenting style, adult attachment to romantic partner, and adult attachment to primary caregiver with overall college adjustment, overall college adjustment was the dependent variable. The dependent variable of college adjustment was measured using the College Adjustment Scales (CAS; Anton & Reed, 1991). While the CAS encompassed nine subscales measuring specific adjustment areas, multiple current research studies have supported the use of a combined measure of these subscales to produce an overall college adjustment measure (Enochs & Roland, 2006; Eschun, 2006; Klein & Pierce, 2009).

The second two research questions, which examined the relationship of perceived parenting style with adult attachment, utilized adult attachment as the dependent variable. Attachment to romantic partner was measured using the ECR-R (Fraley et al., 2000) and attachment to primary caregiver was measured using the ECR-RS (Fraley et al., 2011) based on responses reflecting attachment and avoidance continuums. The final research questions sought to understand the relationship between adult attachment to primary caregiver and adult attachment to romantic partner. The dependent variable was adult attachment to romantic partner as measured with the ECR-R (Fraley et al., 2000).

### **Statistical Design**

Research questions for this study were introduced in Chapter I. The questions are re-stated with appropriate statistical analyses used in the current study:

- Q1 To what extent did retrospective reports of parenting style based on levels of authoritarianism, authoritativeness, and permissiveness (as measured by the Parental Authority Questionnaire [PAQ]; Buri, 1991) explain overall college adjustment (as measured by the College Adjustment Scales [CAS]; Anton & Reed, 1991)?
- Q2 To what extent did current levels of adult attachment style to romantic partner (as measured by the Experiences in Close Relationships-Revised [ECR-R]; Fraley et al., 2000) explain overall college adjustment (as measured by the College Adjustment Scales [CAS]; Anton & Reed, 1991)?
- Q3 To what extent did current levels of adult attachment style to primary caregiver (as measured by the Experiences in Close Relationships--Relationship Structures Questionnaire [ECR-RS]; Fraley et al., 2011) explain overall college adjustment (as measured by the College Adjustment Scales [CAS]; Anton & Reed, 1991)?
- Q4 To what extent did retrospective reports of parenting style based on levels of authoritarianism, authoritativeness, and permissiveness (as measured by the Parental Authority Questionnaire [PAQ]; Buri, 1991) explain levels of current adult attachment to romantic partner (as measured by the Experiences in Close Relationships-Revised [ECR-R]; Fraley et al., 2000)?
- Q5 To what extent did retrospective reports of parenting style based on levels of authoritarianism, authoritativeness, and permissiveness (as measured by the Parental Authority Questionnaire [PAQ]; Buri, 1991) explain levels of current adult attachment to primary caregiver (as measured by the Experiences in Close Relationships--Relationship Structures Questionnaire [ECR-RS]; Fraley et al., 2011)?
- Q6 To what extent did current levels of attachment to primary caregiver (as measured by the Experiences in Close Relationships--Relationship Structures Questionnaire [ECR-RS]; Fraley et al., 2011) explain current levels of adult attachment style to romantic partner (as measured by the Experiences in Close Relationships-Revised [ECR-R; Fraley et al., 2000)?

To investigate research questions 1, 2, and 3 regarding how much variance in the dependent variable of overall college adjustment as measured by the CAS (Anton & Reed, 1991) was accounted for by the independent variables of parenting style (as measured by the PAQ; Buri, 1991), attachment to romantic partner (as measured by the

ECR-R; Fraley et al., 2000), and attachment to primary caregiver (as measured by the ECR-RS; Fraley et al., 2011), a hierarchical multiple linear regression analysis was utilized. A hierarchical regression analysis was used due to previous research support for gender as a variable, which explained some variance in college adjustment (Enochs & Roland, 2006; Nafziger et al., 1998). Gender was entered into the first step of the hierarchical regression. In the second step, the independent variables of parenting style, attachment to romantic partner, and attachment to primary caregiver were entered. This allowed determination of the variance accounted for in overall college adjustment by the independent variables under study above and beyond that accounted for by gender.

To investigate research questions 4 and 5 regarding how much variance was accounted for in the dependent variables of attachment to primary caregiver and attachment to romantic partner by the independent variable of parenting style, a simultaneous entry, multiple regression analysis was conducted. This test determined whether or not the independent variable of perceived parenting style levels (i.e., authoritative, authoritarian, permissive as measured by the PAQ [Buri, 1991]) was associated with the continuous dependent variable of level of attachment style (measured on continua of anxiety and avoidance by the ECR-R [Fraley et al., 2000]) for romantic partner (Q1) and the ECR-RS (Fraley et al., 2011) for primary caregiver (Q2). Outcomes of these two multiple regression analyses provided information regarding which type of perceived parenting style levels explained the most variance in attachment style levels to primary caregiver and to romantic partner.

To investigate research question 6, a multiple regression analysis was completed. The dependent variable was current adult attachment to romantic partner as measured by



the ECR-R (Fraley et al., 2000). The predictor variable (independent variable) was current adult attachment style to primary caregiver as measured by the ECR-RS (Fraley et al., 2011). This analysis allowed for understanding of the relationship between current levels of attachment to romantic partner and current levels of attachment to primary caregiver. Further description of multiple regression analyses are described in the Primary Analyses section.

## **Data Analysis**

### **Preliminary Analyses**

No items on the PAQ (Buri, 1991) required reverse coding. On the ECR-R, several items were reverse coded (Fraley et al., 2000), which are noted in Appendix D. On the ECR-RS, two items required reverse coding (Fraley et al., 2011) and are noted in Appendix E. Items that were re-coded on the CAS are noted in Appendix F (Anton & Reed, 1991).

Means and standard deviations for each of the variables (levels of perceived parenting style [PAQ], levels of secure attachment to romantic partner [ECR-R], levels of secure attachment to primary caregiver [ECR-RS] and overall college adjustment [CAS]) were obtained from the self-report measures participants completed. Distributional characteristics and descriptive statistics for each variable were examined for normality, potential outliers, and missing data. Kurtosis and skewness statistics were computed to assure univariate normality with consideration that absolute values above 1.96 were cause for concern regarding the normality of the distribution (Field, 2005). Kline (2011) suggested using skewness and kurtosis cutoffs of |3.00| and |10.00|, respectively.

Stevens (1996) suggested that when conducting multiple regression analyses, the following assumptions should be checked: all variables should be measured without error, predictors should have non-zero variance and no perfect multicollinearity, residuals should be independent and normally distributed, and the independent variable and dependent variable should be linearly related. To examine the assumption that variables are measured without error, reliability was computed and reported using Cronbach's alpha for each multi-item scale variable. For acceptable reliability coefficients, Kline (2011) suggested that .7 was adequate; therefore, this cutoff value helped provide a guide in determining the strength of the scales' scores of reliability. To examine the assumption of non-zero variance and no perfect multicollinearity, descriptive statistics were utilized to ensure that explanatory variables had non-zero variance and a correlation matrix was examined to assess multicollinearity between predictors. In addition, collinearity diagnostics including statistics such as the variance inflation factor (VIF), tolerance, and eigenvalues were computed to examine possible multicollinearity. Kline suggested that a VIF of over 10, associated with a tolerance value of less than .10, was problematic, indicating that multicollinearity might be severely biasing the model. Bivariate correlations greater than .90 suggested multicollinearity between predictors as well (Kline, 2011). To examine the assumption that residuals were distributed with constant variance, residuals plots and histograms of residuals were examined. Normal probability plots of residuals were examined to ensure normality of residuals. To examine the assumptions that independent and dependent variables were linearly related and to determine the independence of residuals, descriptive statistics and bivariate scatter plots between standardized residuals and predicted values were utilized.

Following the recommendations of Slaney and Maraun (2008), an exploratory factor analysis (EFA) was used to examine the factor structure of each multi-item scale for the current sample and to support the factors identified in previous research. As noted previously, Mundfrom et al. (2005) recommended a minimum sample size of 130 for an exploratory factor analysis (EFA) with a variables-to-factors ratio of 6, wide communality, and a coefficient of congruence  $K > .98$  (“excellent” criteria). A confirmatory factor analysis was not completed because the current study’s sample did not meet the suggested required sample size necessary ( $N = 200$ ; Kline, 2011). On each measure for which an EFA was performed, current research supported a given number of factors for each scale; therefore, these identified numbers of factors were used a priori for initial factor analysis. Using EFA, other potential solutions regarding the number of factors to retain were examined utilizing a maximum likelihood extraction method to review resulting scree plots of eigenvalues, eigenvalues  $> 1.0$ , and eigenvalues correlation matrices to determine if these were consistent with the a priori number of factors suggested from prior research. Factors were ultimately retained given that the solution was interpretable. In addition to examining prior research on each scale, Akaike’s Information Criterion and Schwarz’s Bayesian Criterion statistic were examined to consider the suggested number of factors to be included. The type of rotation method used (Varimax, orthogonal; Promax, oblique) for each scale was based on the original construction of the scale. A clear factor structure supporting previous research on the scales supported the structural validity of the scales utilized for these analyses on this particular sample. Additionally, Cronbach’s alpha coefficients were

computed for each scale to assess reliability. The SPSS version 20 was utilized to conduct all preliminary analyses.

### **Primary Analyses**

In analyzing results of the hierarchical multiple regression analyses, the primary statistic utilized was the *R*-squared statistic to examine how much variance was accounted for by each given regression model. In addition, parameter estimates (tested via *t*-values) for each explanatory variable in each regression model were examined to discover which explanatory variables accounted for variance within each of the overall models. For the analyses utilizing CAS as the outcome variable, the additional variable of gender was included in the hierarchical multiple regression as a control variable due to its posited explanation of some variation in overall college adjustment. In these analyses, the change in *R* squared was examined to delineate the variance accounted for above and beyond the variable of gender in explaining overall college adjustment. Given that seven multiple regression analyses were conducted, it was necessary to use an adjusted alpha value to determine significance values of tests to avoid inflating the Type I error rate (Kline, 2011). While some research suggested that the Bonferroni correction might be an overly conservative estimate for determining significance, it was utilized in the current study as it was a demonstrated tool to adjust the alpha when multiple analyses were conducted (Mundfrom, Perrett, Schaffer, Piccone, & Roozeboom, 2006). Using the Bonferroni correction (alpha level divided by the number of repeated analyses) provided the alpha level used in the current study: .007 ( $.05/7 = .007$ ).

## **CHAPTER IV**

### **RESULTS**

As described in Chapter III in the current study, descriptive statistics were reviewed and missing data were explored. Following this, factor analyses were conducted to ensure appropriate factor structure of the scales utilized in the study. Next, hierarchical regression was performed to address the first three research questions. Multiple regression analyses were then conducted to answer the remaining research questions. See Table 3 for descriptive data on all scales utilized and Table 4 for the correlation matrix.

Table 3

*Descriptive Statistics for the Scales of Parenting Style, Attachment, and College Adjustment*

|           | PAQ-<br>P | PAQ-<br>AN | PAQ-<br>AV | ECR-R<br>AX | ECR-R<br>AV | ECR-RS<br>AX | ECR-RS<br>AV | CAS<br>Total |
|-----------|-----------|------------|------------|-------------|-------------|--------------|--------------|--------------|
| <i>N</i>  | 187       | 188        | 188        | 183         | 182         | 188          | 188          | 187          |
| <i>M</i>  | 2.39      | 3.10       | 3.59       | 2.96        | 2.90        | 1.44         | 2.64         | 170.94       |
| <i>SD</i> | .67       | .88        | .82        | 1.30        | 1.34        | .90          | 1.47         | 41.34        |
| Skewness  | .382      | -.21       | -.52       | .36         | .55         | 2.19         | .81          | .967         |
| Kurtosis  | -.15      | -.58       | -.22       | -.96        | -.45        | 3.96         | -.21         | .516         |
| MinScore  | 1.10      | 1.10       | 1.30       | 1.00        | 1.00        | 1.00         | 1.00         | 112.00       |
| MaxScore  | 4.40      | 4.90       | 5.00       | 5.89        | 6.56        | 5.00         | 7.00         | 317.00       |
| Range     | 1-5       | 1-5        | 1-5        | 1-7         | 1-7         | 1-7          | 1-7          |              |

*Note.*  $N = 191$ . The mean range for the items was used as opposed to the total scale range of scores. Sample sizes differ across different scales due to missing data. PAQ = Parental Authority Questionnaire, PAQ-P = Permissive, PAQ-AN = Authoritarian, PAQ-AV = Authoritative, ECR-R = Experiences in Close Relationships-Revised, ECR-R AX = Romantic Attachment Anxiety, ECR-R AV = Romantic Attachment Avoidance, ECR-RS = Experiences in Close Relationships-Relationship Structures, ECR-RS AX = Parental Attachment Anxiety, ECR-RS AC = Parental Attachment Avoidance. *M* = scale mean scores corresponding with range of Likert responses.

Table 4

*Correlations and Reliability Coefficients for Parenting Style, Attachment, and College Adjustment*

|                      | 1      | 2      | 3      | 4      | 5     | 6     | 7     | 8 | $\alpha$ |
|----------------------|--------|--------|--------|--------|-------|-------|-------|---|----------|
| 1. CAS Total         | -      |        |        |        |       |       |       |   | .960     |
| 2. PAQ Permissive    | .111   | -      |        |        |       |       |       |   | .802     |
| 3. PAQ Authoritarian | .090   | -.451* | -      |        |       |       |       |   | .893     |
| 4. PAQ Authoritative | -.303* | .195   | -.276* | -      |       |       |       |   | .879     |
| 5. ECR-R Anxiety     | .536*  | .053   | .052   | -.164  | -     |       |       |   | .931     |
| 6. ECR-R Avoidance   | .345*  | .075   | .114   | -.276* | .488* | -     |       |   | .949     |
| 7. ECR-RS Avoidance  | .320*  | -.096  | .229*  | -.629* | .190  | .187  | -     |   | .906     |
| 8. ECR-RS Anxiety    | .344*  | .063   | .054   | -.368* | .211  | .256* | .322* | - | .829     |

*Note.*  $N = 191$ .  $\alpha$  = Cronbach's alpha reliability coefficient. \*Indicates significance at .007. Higher CAS scores reflect poorer adjustment. PAQ = Parental Authority Questionnaire, ECR-R = Experiences in Close Relationships-Revised., ECR-RS = Experiences in Close Relationships-Relationship Structures, CAS = College Adjustment Scales.

### Preliminary Analyses

#### Missing Data

Examination of descriptive statistics indicated that on all scales, except for the ECR-R Anxiety and the CAS Total, less than 5% of data were missing. On the ECR-R Anxiety scales, 5.8% of the data were missing and on the CAS Total scale, 9.9% of the

data were missing. Bennet (2001) suggested that when greater than 10% of data are missing, analyses may be biased. In this study, it was determined that a substantial amount of the missing data was attributable to respondents missing one to two items at random. Therefore, the decision was made to create the total score allowing up to two missing items and listwise deletion was used for subsequent analyses. Consequently, no scales had more than 5% of the data missing.

### **Factor Analyses**

The current sample was sufficiently large to conduct an exploratory factor analysis (Slaney & Maraun, 2008). Exploratory factor analysis (EFA) utilizing maximum likelihood extraction with promax rotation was utilized for each of the continuous measurements to verify that items loaded on their respective scales as expected given the previous research and measurement development. Therefore, data were treated as continuous based on their respective scales as originally developed. Initial factor analysis of the ECR-R indicated relatively sound factor structure as expected. The analysis suggested six factors with eigenvalues greater than 1.0; the first two factors had eigenvalues of 13.632 and 5.317, respectively, whereas the other four factors' eigenvalues were not above 2.0 (factors 3 through 6 had eigenvalues ranging from 1.037 to 1.569). Visual inspection of the scree plot did not suggest retaining additional factors; therefore, two factors were forced, which was consistent with the original development using undergraduate students. When two factors were forced, items loaded on them as expected, suggesting anxiety and avoidance as the relevant factors within this measure: factor 1 (anxiety) had an eigenvalue of 13.632 and explained 37.867% of the variance; factor 2 (avoidance) had an eigenvalue of 5.317 and explained



14.771% of the variance. Two items (11 and 9) did not have salient (greater than or equal to .3) pattern coefficients, though the coefficients were not contradictory. Due to support of previous literature indicating and further supporting two factors (Fairchild & Finney, 2006; Fraley et al., 2000; Sibley et al., 2005; Sibley & Liu, 2004) using adult population samples, undergraduate student samples, and current analysis, the two original factors of anxiety and avoidance were retained.

Exploratory factor analysis on the ECR-RS measure supported anxiety and avoidance as two salient, interpretable factors. Analysis suggested that items for each of these two factors loaded as expected from previous research by Fraley et al. (2011) using an adult sample ( $N = 21,838$ ) with a mean age of 31.5. Factor 1 (anxiety) had an eigenvalue of 4.580 and explained 50.885% of the variance. Factor 2 (avoidance) had an eigenvalue of 1.921 and explained 21.349% of the variance.

Exploratory factor analysis on the PAQ measure was also interpretable and items loaded on three factors as expected, consistent with the normative data provided by Buri (1991) on a college sample (see Chapter III). These factors were clearly interpreted as permissive, authoritative, and authoritarian parenting styles. Factor 1 (authoritative) had an eigenvalue of 7.920 and explained 26.400% of the variance. Factor 2 (authoritarian) had an eigenvalue of 4.691 and explained 15.635% of the variance. Factor 3 (permissive) had an eigenvalue of 2.504 and explained 8.348% of the variance. Exploratory factor analysis on the CAS measure suggested a dominant first factor that supported the use of the full scale in the current study rather than the subscales, which has also been done in prior research with college students (Enochs & Roland, 2006; Eschun, 2006; Klein & Pierce, 2009). The dominant first factor had an eigenvalue of 26.345 and explained

24.394% of the total variance. When one factor was forced, the majority of factor loadings ranged from .815 to .303.

The statistical assumption of no measurement error for multiple regression (stated in Chapter III) was first assessed by computing reliability coefficients (see Table 2). This assumption appeared to be met for the variables measured within the current sample. All scales had Cronbach's alpha coefficients above the recommended cut off of .7 (Groth-Marnat, 2009; Kline, 2011). Examination of data for outliers was conducted and no outliers or potentially influential cases were identified.

### **Primary Analyses**

#### **Research Questions and Results Related to College Adjustment**

- Q1 To what extent do retrospective reports of parenting style based on levels of authoritarianism, authoritative, and permissiveness explain overall college adjustment?
- Q2 To what extent do current levels of adult attachment style to romantic partner explain overall college adjustment?
- Q3 To what extent do current levels of adult attachment style to primary caregiver explain overall college adjustment?

To answer research questions 1, 2, and 3, a hierarchical regression analysis was conducted to examine the variance explained in overall college adjustment. Gender was entered first due to its posited explanation of variance in college adjustment (Enochs & Roland, 2006; Nafziger et al., 1998). After entering the variable of gender, the following three sets of variables were entered: Parenting style (i.e., authoritarian parenting, authoritative parenting, and permissive parenting), attachment to romantic partner (i.e., romantic anxious attachment and romantic avoidant attachment), and attachment to primary caregiver (i.e., anxious attachment and avoidant attachment). Before this

analysis was conducted, the following statistical assumptions for multiple regression were addressed as previously described in Chapter III: all variables measured without error, predictors should have non-zero variance and no perfect multicollinearity, residuals should be independent and normally distributed, and the independent variable and dependent variable should be linearly related. These assumptions were checked through examination of histograms of residuals, normal probability plots, and scatter plots (Field, 2005). The assumptions of non-zero variance and no perfect multicollinearity were checked using a correlation matrix and examination of variance inflation factor (VIF) and tolerance values for each analysis. For the constructs of anxious and avoidant romantic attachment (measured with the ECR-R); anxious and avoidant parental attachment (measured by the ECR-RS); authoritarian, authoritative, and permissive parenting styles (measured by the PAQ); and overall college adjustment, these histograms, scatterplots, and normal probability plots evidenced normal distribution and independence of residuals. Residual scatterplots also indicated normal, linear data; the independent variables each appeared linearly related to the dependent variable. The scatter plot for the variables of romantic attachment avoidance and parental attachment anxiety evidenced some possible range restriction or “floor effect.” Additionally, on the variable of parental attachment anxiety, the histogram of observed scores was slightly leptokurtic and had a slightly non-normal P-P plot. All of these variables evidenced relatively normally distributed residuals as would be expected in the sample. The correlation matrix evidenced some mild to moderate multicollinearity between the scores on the scales of romantic attachment anxiety and overall college adjustment ( $r = .536$ ) and on scores on the scales of parental attachment avoidance and authoritative parenting style ( $r$

= -.629). No VIF values exceeded 10 and no tolerance values fell below .1, indicating no severe multicollinearity (Kline, 2011). For research questions 1, 2, and 3, the VIF values were acceptable with values ranging from 1.049 to 1.907.

After testing assumptions, multiple hierarchical regression analysis was performed (see Table 5). Given that seven different analyses were performed, a conservative estimate was applied to determine significance level using the Bonferroni correction ( $.05/7=.007$ ). Gender was entered in the first step of the analysis; previous research (Enochs & Roland, 2006; Nafziger et al., 1998) indicated that it should be accounted for prior to examining the contributions of the other variables. In step two, the variables of retrospective reports of parenting style (PAQ), attachment to romantic partner (ECR-R), and attachment to primary caregiver from childhood (ECR-RS) were entered. Gender was not found to explain a significant amount of variance in overall college adjustment and did not have significant associations with any of the other examined variables. The remaining variables (parenting style, romantic attachment, and parental attachment) collectively explained a significant amount of variance (38%) in overall college adjustment above and beyond gender,  $F(7,165) = 14.65, p < .001$ . Parenting style was non-significant in uniquely explaining variance in overall college adjustment scores,  $F(3,165) = 1.511, p = .214, \Delta R^2 = .017$ . Collectively, using both subscales of attachment anxiety and avoidance with romantic partner, the variable of romantic attachment was significant,  $F(2,165) = 25.664, p < .001, \Delta R^2 = .19$ . Therefore, when controlling for all other variables, romantic attachment uniquely explained 19% of the variance in overall college adjustment. Attachment anxiety with romantic partner was positively associated with higher college maladjustment,  $B = 14.160, p < .001$ .

Collectively, the variable of parental attachment, measuring attachment anxiety and attachment avoidance with primary caregiver from childhood, did not contribute significantly to the explanation of college adjustment after controlling for the other variables in the model,  $F(2,165) = 4.089, p = .018, \Delta R^2 = .03$ .

Table 5

*Hierarchical Regression Explaining College Adjustment*

| Explanatory Variable | $\beta$ | <i>SE b</i> | <i>Beta</i> | <i>t</i> value | <i>p</i> -value | $R^2$ Change | <i>F</i> |
|----------------------|---------|-------------|-------------|----------------|-----------------|--------------|----------|
| Step 1               |         |             |             |                | .243            | .008         | 1.371    |
| Gender               |         |             |             |                |                 |              |          |
| Step 2               |         |             |             |                | <.001*          | .380         | 13.085   |
| PAQ                  |         |             |             |                | .214            | .017         | 1.511    |
| PAQ-P                | 8.217   | 4.375       | .133        | 1.878          | .062            |              |          |
| PAQ-An               | 2.884   | 3.347       | .061        | .862           | .390            |              |          |
| PAQ-Av               | -5.280  | 4.219       | -.105       | -1.251         | .213            |              |          |
| ECR-R                |         |             |             |                | <.001*          | .190         | 25.664   |
| ECR-R Ax             | 14.160  | 2.262       | .442        | 6.261          | <.001*          |              |          |
| ECR-R Av             | .669    | 2.238       | .022        | .299           | .765            |              |          |
| ECR-RS               |         |             |             |                | .018            | .030         | 4.089    |
| ECR-RS Av            | 3.116   | 2.297       | .110        | 1.357          | .177            |              |          |
| ECR-RS Ax            | 7.611   | 3.247       | .159        | 2.344          | .020            |              |          |

*Note.*  $N = 174$ . \*Indicates significance at .007 level. PAQ = Parental Authority Questionnaire, PAQ- P = Permissive, PAQ-An = Authoritarian, PAQ-Av = Authoritative, ECR-R = Experiences in Close Relationships-Revised, ECR-R Ax = Romantic Attachment Anxiety, ECR-R Av = Romantic Attachment Avoidance, ECR-RS = Experiences in Close Relationships-Relationship Structures, ECR-RS Ax = Parental Attachment Anxiety, ECR-RS Av = Parental Attachment Avoidance.

### **Research Questions and Results Related to Parenting and Attachment**

- Q4 To what extent did retrospective reports of parenting style based on levels of authoritarianism, authoritativeness, and permissiveness explain levels of current adult attachment to romantic partner?
- Q5 To what extent did retrospective reports of parenting style based on levels of authoritarianism, authoritativeness, and permissiveness explain levels of current adult attachment to primary caregiver?
- Q6 To what extent did current levels of attachment to primary caregiver explain current levels of adult attachment style to romantic partner?

To answer research questions 4, 5, and 6, multiple regression analyses were performed. As stated previously, a conservative estimate was applied to determine significance level using the Bonferroni correction ( $.05/7=.007$ ). Statistical assumptions for regression, as previously described, were also examined for the analyses and the results of the diagnostics are as follows. The assumptions of non-zero variance and no perfect multicollinearity were checked using a correlation matrix and examination of VIF and tolerance values for each analysis; no VIF values exceeded 10 and no tolerance values fell below .1, indicating no severe multicollinearity (Kline, 2011). The VIF values ranged from 1.078 to 1.384. For all scales and analyses, residuals histograms, normal probability plots, and scatter plots were examined and as previously described, the data met the assumptions for conducting multiple regression analysis.

To answer the fourth research question, two multiple regression analyses were conducted. With regard to this analysis for romantic attachment anxiety (dependent variable), there appeared to be evidence of some restricted range of values based on the scatter plot of residuals versus predicted values (points were slightly condensed together in the center), although not more than would be expected in the normal college

population. Results indicated that retrospective reports of parenting style as measured by the PAQ did not explain a statistically significant amount of variance in attachment anxiety with romantic partner as measured by the ECR-R (see Table 6). Retrospective reports of parenting style explained a significant amount of variance in attachment avoidance as measured by the ECR-R; 10.8% of the variance in attachment avoidance as measured by the ECR-R was accounted for by the PAQ,  $F(3,175) = 7.079, p < .001$  (see Table 7). Higher scores of retrospectively reporting of authoritative parenting on the PAQ were associated with lower scores on attachment avoidance on the ECR-R,  $B = -.464, p < .001$ . Scores of retrospectively reported permissive parenting on the PAQ were not associated with attachment avoidance on ECR-R,  $B = .376, p = .019$ . Retrospective reports of authoritarian parenting on the PAQ were also not significantly associated with attachment avoidance on the ECR-R,  $B = .186, p = .143$ .

Table 6

*Anxious Attachment to Romantic Partner Explained by Parenting Style*

| Explanatory Variable | <i>B</i> | <i>SE b</i> | <i>t</i> value | <i>P</i> value | <i>R</i> <sup>2</sup> | <i>F</i> |
|----------------------|----------|-------------|----------------|----------------|-----------------------|----------|
| PAQ                  |          |             |                | .104           | .034                  | 2.084    |
| PAQ Permissive       | .246     | .161        | 1.531          | .127           |                       |          |
| PAQ Authoritarian    | .081     | .126        | .645           | .520           |                       |          |
| PAQ Authoritative    | -.248    | .123        | -2.012         | .046           |                       |          |

*Note.* \*Indicates significance at .007 level. PAQ = Parental Authority Questionnaire.

Table 7

*Avoidant Attachment to Romantic Partner Explained by Parenting Style*

| Explanatory Variable | <i>B</i> | <i>SE b</i> | <i>t</i> value | <i>P</i> value | <i>R</i> <sup>2</sup> | <i>F</i> |
|----------------------|----------|-------------|----------------|----------------|-----------------------|----------|
| PAQ                  |          |             |                | <.001*         | .108                  | 7.079    |
| PAQ Permissive       | .376     | .159        | 2.361          | .019           |                       |          |
| PAQ Authoritarian    | .186     | .126        | 1.471          | .143           |                       |          |
| PAQ Authoritative    | -.464    | .123        | -3.784         | <.001*         |                       |          |

*Note.* \*Indicates significance at .007 level. PAQ = Parental Authority Questionnaire.

To answer the fifth research question, two multiple regression analyses were conducted. The first analysis examined the variance in attachment anxiety with primary caregiver from childhood that could be explained by retrospective reports of parenting style. For the ECR-RS Anxiety scale, residuals plots indicated mild non-normality with positive skew and a possible floor effect suggesting restricted range. Despite the apparent non-normality, the *F* test was generally robust to violation of the normality assumption (Pedhazur, 1997). Results indicated that retrospective reports of parenting style as measured by the PAQ explained a significant amount of variance in levels of attachment anxiety to primary caregiver from childhood as measured by the ECR-RS. Results found that 16.3% of the variance in attachment anxiety (ECR-RS) was accounted for by the PAQ,  $F(3,181) = 11.725, p < .001$  (see Table 8). Higher scores on retrospective reports of authoritative parenting were associated with lower scores on attachment anxiety with primary caregiver from childhood  $B = -.411, p < .001$ . Scores on retrospective reports of permissive parenting were not significantly associated with scores



on attachment anxiety with primary caregiver from childhood  $B = .242, p < .016$ .

Retrospective reports of authoritarian parenting were also not significantly associated with scores on parental attachment anxiety.

The second analysis examined the variance in attachment avoidance with primary caregiver from childhood that could be explained by retrospective reports of parenting style. The residuals plot exhibited very slight positive skew and some floor effect, indicating possible restricted range; however, the residuals were mostly dispersed and distributed as would be expected in a normal college population. Results indicated that retrospective reports of parenting style as measured by the PAQ explained a significant amount of variance in levels of attachment avoidance with primary caregiver from childhood as measured by the ECR-RS. In this analysis, 40.6% of the variance in attachment avoidance (ECR-RS) was accounted for by the PAQ,  $F(3,181) = 41.282, p < .001$  (see Table 9). Higher scores on retrospective reports of authoritative parenting were associated with lower scores on attachment avoidance with primary caregiver  $B = -1.126, p < .001$ .

Table 8

*Anxious Attachment to Primary Caregiver Explained by Parenting Style*

| Explanatory Variable | <i>B</i> | <i>SE b</i> | <i>t</i> value | <i>P</i> value | <i>R</i> <sup>2</sup> | <i>F</i> |
|----------------------|----------|-------------|----------------|----------------|-----------------------|----------|
| PAQ                  |          |             |                | <.001*         | .163                  | 11.725   |
| PAQ Permissive       | .242     | .099        | 2.441          | .016           |                       |          |
| PAQ Authoritarian    | .044     | .078        | .560           | .576           |                       |          |
| PAQ Authoritative    | -.411    | .075        | -5.447         | <.001*         |                       |          |

*Note.* \*Indicates significance at .007 level. PAQ = Parental Authority Questionnaire.

Table 9

*Avoidant Attachment to Primary Caregiver Explained by Parenting Style*

| Explanatory Variable | <i>B</i> | <i>SE b</i> | <i>t</i> value | <i>P</i> value | <i>R</i> <sup>2</sup> | <i>F</i> |
|----------------------|----------|-------------|----------------|----------------|-----------------------|----------|
| PAQ                  |          |             |                | <.001*         | .406                  | 41.282   |
| PAQ Permissive       | .145     | .140        | 1.035          | .302           |                       |          |
| PAQ Authoritarian    | .098     | .110        | .895           | .372           |                       |          |
| PAQ Authoritative    | -1.126   | .106        | -10.582        | <.001*         |                       |          |

*Note.* \*Indicates significance at .007 level. PAQ = Parental Authority Questionnaire.

To answer the sixth research question, two multiple regression analyses were conducted to examine the variance in levels of current adult attachment with romantic partner explained by levels of adult attachment with primary caregiver. Results indicated

that 5.9% of the variance in attachment anxiety with romantic partner was accounted for by attachment to primary caregiver,  $F(2,178) = 5.556, p = .004$  (see Table 10).

Additionally, 8.3% of the variance in attachment avoidance with romantic partner (ECR-R) was accounted for attachment to primary caregiver,  $F(2, 177) = 7.95, p < .001$  (see Table 11). Specifically, greater levels of attachment anxiety with primary caregiver were associated with greater levels of attachment avoidance with romantic partner  $B = .343, p = .003$ .

Table 10

*Anxious Attachment to Romantic Partner Explained by Attachment to Primary Caregiver*

| Explanatory Variable | $\beta$ | $SE b$ | $t$ value | P value | $R^2$ | $F$   |
|----------------------|---------|--------|-----------|---------|-------|-------|
| ECR-RS               |         |        |           | .005*   | .059  | 5.556 |
| ECR-RS Anxiety       | .244    | .113   | 2.161     | .032    |       |       |
| ECR-RS Avoidance     | .117    | .069   | 1.712     | .089    |       |       |

*Note.* \*Indicates significance at .007 level. ECR-RS = Experiences in Close Relationships –Relationship Structures Questionnaire.

Table 11

*Avoidant Attachment to Romantic Partner Explained by Attachment to Primary Caregiver*

| Explanatory Variable | $\beta$ | <i>SE b</i> | <i>t</i> value | <i>P</i> value | $R^2$ | <i>F</i> |
|----------------------|---------|-------------|----------------|----------------|-------|----------|
| ECR-RS               |         |             |                | <.001*         | .083  | 7.958    |
| ECR-RS Anxiety       | .343    | .116        | 2.970          | .003*          |       |          |
| ECR-RS Avoidance     | .110    | .071        | 1.562          | .120           |       |          |

*Note.* \*Indicates significance at .007 level. ECR-RS = Experiences in Close Relationships – Relationship Structures Questionnaire.

## **CHAPTER V**

### **DISCUSSION**

The overarching goal of this study was to investigate and develop a greater understanding of the variables of perceived parenting style, current attachment to romantic partner, current attachment to primary caregiver from childhood, and overall college adjustment. The outcomes of this study were useful in understanding how attachment style in adulthood was related to past experiences of being parented and how both of these variables influenced overall college adjustment. While other studies examined parenting style and its relationship with adult attachment (Bartholomew & Horowitz, 1991; Simpson, 1990), parenting style and its relationship to college adjustment (Darling & Steinberg, 1993; Steinberg et al., 1994), and adult attachment as it related to college adjustment (Frey et al., 2006; Kenny & Rice, 1995; Mattanah et al., 2004; Parade et al., 2010), no study has investigated all of these variables simultaneously. Existing studies were in agreement that the quality of caregiving was related to healthier attachments later in life and greater adjustment in college (Frey et al., 2006; Kenny & Rice, 1995; Thompson, 2006). However, evidence is somewhat mixed regarding the relative effect of parenting style on attachment as well as parenting style and attachment on overall college adjustment.

When considering how difficult adjustment to college can be for students, it is necessary to explore contributions to this difficulty with the hope of finding ways to

intervene and make the adjustment to college easier. This study offered greater understanding of how different types of adult romantic and parental attachment and the student's perceptions of being parented might affect their college adjustment. Exploration of these variables specifically allows determination of potential prevention and intervention programs for individuals or groups. This study was successful in offering insight into how these variables were inter-related as well as how they explained developmental outcomes in college.

### **Parenting Style, Attachment, and College Adjustment**

The initial research questions in the study addressed the ability of the variables of perceived parenting style, adult attachment to romantic partner, and adult attachment to primary caregiver from childhood to explain overall college adjustment. It was hypothesized that both parenting style and adult attachment (to romantic partner and primary caregiver) would contribute to overall college adjustment. Specifically, it was hypothesized that secure attachments and authoritative parenting style would be associated with greater adjustment in college; in contrast, it was hypothesized that anxious or avoidant attachment as well as perceived permissive or authoritarian parenting style would be associated with poor college adjustment. Of particular interest was how much each of these variables might contribute to college adjustment.

Based on the findings, the variables of retrospectively reported parenting style, attachment to romantic partner, and attachment to primary caregiver from childhood collectively explained a significant amount of variance (38%) in overall college adjustment. However, the hypothesis that each variable would uniquely contribute was not supported. Particularly, while romantic attachment explained a significant amount of

variance (19%) in college adjustment, neither parenting style nor attachment to primary caregiver was significant in explaining variance in overall college adjustment. As hypothesized, within the significant variable of adult romantic attachment, attachment anxiety was associated with poorer college adjustment.

The aforementioned finding was partially congruent with previous research. Many authors supported the broad link between current attachment patterns in different relationships and college adjustment (Frey et al., 2006; Hankin et al., 2005; Mattanah et al., 2004). This was consistent with the current study's finding that romantic attachment was highly associated with college adjustment. Previous research was somewhat mixed regarding the influence of parenting style alone on college adjustment, arguing that more research was needed to ascertain the effect of parenting style personal and interpersonal variables (Neal & Frick-Horbury, 2001). The current study did not find parenting style to be significantly associated with college adjustment. This result was somewhat consistent with previous research that suggested attachment style, over perceived parenting style, was a greater predictor of adult relationship quality as well as other possible facets of adjustment (Neal & Frick-Horbury, 2001). Other studies supported the link between parenting style and adjustment for adolescents (Lamborn et al., 1991; Weiss & Schwarz, 1996) and suggested that the effects of parenting style would remain stable into the college years. Research maintained support of this claim for some areas of college adjustment such as self-esteem (Buri et al., 1988). Hickman et al. (2000) also supported the association between parenting style and academic achievement in college. The current study utilized a broader conceptualization of college adjustment that included various categories of psychological problems, academic problems, and interpersonal

problems. It is possible that this difference in outcome measures used among studies was the cause for the varying results regarding the importance of parenting style. The current study suggested that parenting style was likely associated with some facets of adjustment related to interpersonal functioning based on analyses of parenting style and attachment, although it was not associated directly with overall college adjustment.

Studies also suggested that secure attachment style with parents was associated with greater adjustment in college (Frey et al., 2006; Kenny & Donaldson, 1991; Lapsley & Edgerton, 2002; Lapsley et al., 1990), a finding that was not supported in the current study. The current study was similar to Kenny and Donaldson's (1991) study; both utilized college populations. However, Kenny and Donaldson's study restricted the sample to first year college students, whereas the current study included undergraduate students in any year. While Kenny and Donaldson concluded that individuals with characteristics of secure attachment with parents reported greater levels of psychological well-being, adaptive functioning, and social competence, the current study did not find associations among these variables. It is possible that the differences in the study's findings of the importance of parental attachment in explaining adjustment were related to the differences in samples. Specifically, Kenny and Donaldson's sample included a majority of 17-18-year-olds; whereas the age range in the current study was much broader, ranging from 18 to 64 with a mean age of 23.08 ( $SD = 6.09$ ) and a median age of 21. Both studies utilized similar conceptions of attachment; however, Kenny and Donaldson's study contained an additional measure of family-structure. Adjustment was conceptualized somewhat differently in each study. The current study utilized one concise measure of college adjustment, the CAS, while Kenny and Donaldson's study



utilized two measures of psychological functioning to assess college adjustment. It is possible that the relationship found by Kenny and Donaldson was reflective of associations partially due to the inclusion of a family structure measure as well as the different conceptualizations of adjustment.

Kenny and Donaldson also demonstrated a link between secure attachment to parents, gender, and adjustment; the current study did not find gender to be a significant variable in explaining college adjustment. Based on their finding, Kenny and Donaldson concluded that relationships were more central to psychological development of women than men. The current study's results suggested that gender was not a significant factor in explaining adjustment. This major difference might be attributed to both the age range difference in each study and societal differences reflective of the time periods in which each study was conducted.

Frey et al.'s (2006) study concluded that in a college sample, secure parental attachment predicted lower psychological distress. While the current study did not use the variable of psychological distress, the variable of overall college adjustment included a majority of subscales that measured aspects of psychological distress such as anxiety and depression. The current study's lack of support for this finding was likely due to the inclusion of additional variables such as community relationships and peer relationships in Frey et al.'s study. The authors found that while insecure attachment with parents had an effect on psychological distress, the variables of peer and community relationships had a significant association beyond that of secure attachment to parents, indicating psychological distress.

Similarly, Lapsley et al.'s (1990) study concluded that attachment to both parents and peers mediated social and personal identity, academic, and personal-emotional adjustment in college. Their results suggested that attachment to parents was only predictive of academic adjustment, whereas attachment to peers and parents was predictive of the other facets of adjustment. These findings were somewhat in agreement with the current study in suggesting that other variables (i.e., adult relational attachment) apart from attachment to parents played a role in aspects of college adjustment (e.g., psychological distress variables).

As hypothesized, the current study supported the idea that secure attachment, particularly with romantic partner, might serve as an especially protective factor in adjustment in college. While attachment to primary caregiver was not associated directly with college adjustment, later analyses demonstrated that it was associated with romantic attachment. A meta-analysis examining the contribution of parental attachment bonds to college student development published recently suggested similar results. In their meta-analysis, Mattanah, Lopez, and Govern (2011) noted that secure attachment with parents likely affected romantic attachment security and that romantic attachment bonds generally became stronger in college; whereas parental attachment bonds became weaker, a natural progression and transfer of the attachment internal working model. In turn, intimate peer attachment bonds had a greater influence on college adjustment relative to parental attachment bonds (Mattanah et al., 2011).

Similarly, parenting style was not significantly associated with college adjustment. However, later analyses demonstrated a significant association of parenting style with attachment to primary caregiver and parenting style with attachment to

romantic partner. It appeared that the relationship among these variables was more complex than was previously assumed. Specifically, the current study indicated that parenting style and parental attachment were each significantly associated with romantic attachment and romantic attachment was the only variable significantly associated with overall college adjustment. It is possible that the variables of parenting style and parental attachment influenced college adjustment in that they influenced romantic attachment but did not influence college adjustment directly as was hypothesized.

### **Parenting Style and Attachment**

The second part of the study focused on assessing how the variables of perceived parenting style and adult attachment were related apart from college adjustment. Data analysis sought to better understand the association between perceived parenting style and adult romantic attachment as well as parenting style and adult attachment to primary caregiver from childhood. It was hypothesized that authoritative parenting style would be positively associated with secure romantic attachment and permissive or authoritarian parenting style would be associated with anxious or avoidant romantic attachment. Similarly, it was hypothesized that authoritative parenting would be associated with secure adult attachment to primary caregiver from childhood whereas permissive or authoritarian parenting style would be associated with anxious or avoidant attachment to primary caregiver.

### **Parenting Style and Romantic Adult Attachment**

The current study found that retrospective reports of parenting style explained a significant amount of variance in attachment avoidance with a romantic partner. Specifically, 10.8% of the variance in romantic attachment avoidance was explained by

parenting style with authoritative parenting clearly associated with lower romantic attachment avoidance. However, not supporting the hypothesized relationships, neither permissive nor authoritarian parenting styles were associated with romantic attachment avoidance or romantic attachment anxiety.

The results of these analyses were somewhat consistent with research on parenting styles and attachment to romantic partner. Broadly, studies suggested that overall, authoritative parenting promoted positive development and parenting style influenced internal working models of attachment throughout the lifespan (Bartholomew & Horowitz, 1991; Baumrind, 1991; Feeney & Noller, 1990). Specifically, Neal and Frick-Horbury's (2001) study demonstrated a strong relationship between reporting authoritative parenting and endorsing a secure attachment style. The results of the current study, as well as Neal and Frick-Horbury's study, fit with the theoretical model proposed by Andersson and Perris (2000). It was hypothesized that dysfunctional parenting led to negative experiences of parental attitudes and insecure attachment patterns that created dysfunctional internal working models of the self and others. In contrast, it would be expected that the functional behaviors that characterize authoritative parenting would foster positive experiences of parental attitudes and secure attachment patterns, which would serve to create functional internal models and, thus, adult secure attachment.

While the association between authoritative parenting and less attachment avoidance was supported, the associations between permissive or authoritarian parenting were not significant in explaining attachment avoidance or attachment anxiety. Previous research (Baumrind, 1991; Feeney & Noller, 1990; Neal & Frick-Horbury, 2001)

suggested that these parenting styles would likely be associated with greater attachment anxiety and avoidance. The current results suggested that the presence of permissive or authoritarian parenting might not be as important in explaining romantic attachment as was authoritative parenting. It is possible that greater attachment anxiety and avoidance were a result of the culmination of many factors that might or might not include parenting style. It is also possible that factors such as resilience, self-esteem, positive role models, and other secure childhood relationships might be protective against detrimental effects of permissive or authoritarian parenting on romantic attachment.

### **Parenting Style and Adult Attachment to Primary Caregiver**

In this study, parenting style explained a significant amount of variance (40.6%) in levels of attachment avoidance with primary caregiver from childhood. Specifically, higher scores on authoritative parenting were associated with lower scores on attachment avoidance with primary caregiver ( $r = -.606, p < .001$ ). This finding was consistent with the previous analysis, which also indicated an association between authoritative parenting and less parental attachment avoidance. Results also indicated that retrospective reports of parenting style explained a significant amount of variance (16.3%) in levels of attachment anxiety to primary caregiver from childhood. As hypothesized, higher scores of authoritative parenting were associated with lower scores on parental attachment anxiety ( $r = -.370, p < .001$ ).

Both of these results were highly consistent with previous research. Karavasilis et al. (2003) found that authoritative parental behaviors were associated with securely attached children and adolescents (lower attachment anxiety and lower attachment avoidance) with the mother. Similarly, Güngör and Bornstein (2010) demonstrated that

perceptions of maternal warmth were associated with less attachment avoidance. While Karavasilis et al. and Güngör and Bornstein utilized middle school children, the current study extended this finding into the college population. The current study also supported the use of examining parenting style across three domains as conceptualized by Baumrind (1991) to better understand the associations between parenting style and attachment. The findings indicated the importance of parenting style and behavior in promoting secure attachment to primary caregiver that extends beyond adolescence into adulthood.

While the associations between authoritative parenting and less parental attachment anxiety and less parental attachment avoidance were significant and hypothesized, scores on retrospective reports of permissive parenting and authoritarian parenting were not significantly associated with attachment anxiety with primary caregiver from childhood. These results were inconsistent with what would be expected given previous research. Attachment anxiety or avoidance with primary caregiver might be associated with a number of other factors apart from permissive or authoritarian parenting. The positive effect of authoritative parenting is clear and intuitive. When parents provide clear guidelines and are nurturing, supportive, and responsive, they foster attachments that are healthy, secure, and stable into adulthood. Authoritative parenting might also serve as a protective factor affecting the ways individuals deal with stressful and traumatic life events that could affect their attachment orientations. Similarly, permissive or authoritarian parenting likely affects the individual in many other facets apart from adult parental attachment. When considered in this manner, it is possible that permissive and authoritarian parenting is only one of many factors that might contribute

to poor parental attachment. However, it alone does not explain anxious or avoidant parental attachment.

### **Adult Attachment to Primary Caregiver and Adult Romantic Attachment**

Lastly, analyses in the current study were conducted to determine how much variance in adult romantic attachment might be explained by adult attachment to primary caregiver. Results indicated a significant amount of variance (5.9%) in romantic attachment anxiety was associated with attachment to primary caregiver. Similarly, a significant amount of variance (8.3%) in romantic attachment avoidance was also significantly accounted for by attachment to primary caregiver. Specifically, greater levels of attachment anxiety with primary caregiver were associated with greater levels of attachment avoidance with romantic partner ( $r = .214, p = .003$ ).

The association between attachment to primary caregiver and romantic attachment was expected based on prior literature. Many authors suggested that attachment patterns were stable across relationships and across time (Collins & Read, 1990; Feeney & Noller, 1996; Scharfe & Bartholomew, 1994). The current study further substantiated the claim of stability in attachment, although it was based on cross-sectional research and not a longitudinal study. The results suggested a direct relationship between attachment to primary caregiver and attachment to romantic partner. A relationship between parental attachment and college adjustment was expected given findings such as Kenny and Rice's (1995) model of parental attachment and its role as a protective factor or a source of security in promoting adaptive functioning for college students. While the current study did not find a direct relationship between attachment to primary caregiver and overall college adjustment, the relationship between parental attachment and

romantic attachment and the relationship between romantic attachment and college adjustment suggested that further study was necessary. Similar to Andersson and Perris' (2000) model, this theoretical assumption would also expect that secure attachment with parents promoted an internal working model of attachment that is secure, affecting one's behaviors in a romantic relationship and promoting psychological resilience and adaptive functioning.

### **Theoretical Implications**

The results of the current study were consistent with attachment theory. Attachment theory suggests that the quality of attachments formed early on is related to later psychological development (Bowlby, 1977) and that these attachments are influenced by one's relationship with the primary caregivers in childhood. Experiences of being parented contribute to the formation of internal working models of attachment that may be insecure or secure (Ainsworth, 1989). These assumptions are consistent with theory on how parenting styles affect later attachment bonds. Authoritative parenting that is sensitive and responsive is associated with secure attachment whereas resentful, rejecting caregiving is associated with insecure attachment (De Wolff & van IJzendoorn, 1997; Neal and Frick-Horbury, 2001).

It has also been suggested that attachment is relatively stable throughout the lifespan (Bowlby, 1982; Collins & Read, 1990; Scharfe & Bartholomew, 1994; Zhang & Labouvie-Vief, 2004). Specifically, an individual's experiences with parents affect his or her ability to make and maintain affectional bonds (Bowlby, 1977). The current results demonstrating the association between parenting style and attachment suggested consistency with this aspect of attachment theory given the consideration that the current



study was cross-sectional, not longitudinal. Parenting style affecting early attachment schemas clearly played a part in adult attachment schemas. Similarly, research on attachment theory has indicated that the infant-caregiver attachment system persists into adult life and is reflected in attachment relationship with caregivers in adulthood. This study's finding of the association between authoritative parenting style and lower attachment anxiety and attachment avoidance to primary caregiver was in line with this aspect of attachment theory when it was assumed that parenting style contributed to the initial formation of the internal working model of attachment with the primary caregiver. The results of this study suggested that authoritative parenting promoted an internal working model of attachment with the primary caregiver that was secure. This study also suggested that authoritative parenting might play more of an active role in the development of internal working models of attachment given that permissive and authoritarian parenting were not significantly associated with adult parental attachment.

While attachment theory is clear on accounting for how early attachments and experiences of being parented affect later attachment via internal working models, it is less descriptive in explaining how attachment bonds affect other areas of life such as college adjustment. In the current study, attachment to romantic partner was clearly linked with overall college adjustment. This finding was consistent with attachment theory; specifically, those with secure romantic attachments characterized by trust, the ability to be emotionally close, the ability to depend on others and have others depend on them, are emotionally available, and are responsive would generally have more satisfying relationships. For instance, if an individual had an internal working model that represented secure attachment, they were more likely to carry forward appropriate

expectations and perceptions of others behavior, thus influencing social adjustment and a greater quality of interpersonal relationships (Cummings-Robeau et al., 2009; Neal & Frick-Horbury, 2001; Parade et al., 2010). Similarly, attachment theory posits that secure attachment may serve as a protective factor by promoting healthy relationships, cognitive flexibility, perseverance, self-esteem, and emotional adjustment (Ainsworth et al., 1978; Bowlby, 1969, 1973). These factors are all likely to encourage greater adjustment in college. In contrast, as a protective factor, secure attachment may also prevent the development of difficulties in socio emotional, cognitive, and biological systems (Cicchetti & Toth, 1998). These difficulties would likely be reflected in poorer college adjustment.

### **Practice Implications**

Practical uses of this study are far reaching for counseling psychologists; they include applications for outreach and therapeutic interventions for college students, parents, and families. Most directly, this research is valuable for counseling psychologists working with college students. As noted, college is a period of substantial growth and development (Arnett, 2000). Many students experience difficulties with adjustment, which are exhibited in mental health problems such as anxiety, depression, eating disorders, substance use, and interpersonal, academic, and adjustment problems. Conclusions from this study suggested the importance of exploring, understanding, and processing individuals' attachment orientations and the history of those patterns. Specifically, counseling psychologists should consider more thorough investigations of attachment style with romantic partner to understand how this might influence adjustment in college. For example, if attachment to a romantic partner appears to be anxious or

avoidant, it might be useful to intervene in this area in hopes of improving overall college adjustment. In considering this factor, conclusions from this study suggested that one's perceived parenting style, specifically related to authoritative parenting as well as attachment style with the primary caregiver, might play a role in affecting a romantic attachment. When exploring romantic attachment, it would be important to consider historical factors such as parenting style. It would also be necessary to examine parental attachment as this was significantly associated with romantic attachment. Interventions that lessen parental attachment avoidance and anxiety might serve to promote secure attachment with romantic partner, which would, in turn, improve overall college adjustment.

Many theories of counseling emphasize a present focus, lending less time to historical variables such as experiences of being parented. The current research suggested that these factors likely had an influence on an individual's attachment to parents and to romantic partners, necessitating greater understanding of the variables in a therapeutic setting. Interventions should be aimed at helping an individual understand his or her recollection of being parented and how this might influence their adult attachments. Counseling psychologists might help individuals understand whether the parenting style they experienced was authoritarian, authoritative, or permissive. This might lend useful information regarding their current adult attachment orientations with romantic partners and caregivers from childhood. Interventions should be aimed at helping individuals work toward secure attachments as romantic attachment style clearly served as a developmental pathway in explaining adjustment to college. Counseling psychologists could aid individuals in this arena by focusing on all relationships that are

central to the individual's life as well as encouraging individuals to expand their relationships.

This research had implications for parents as well. Given the association between authoritative parenting style and adult romantic and parental attachment and the association between romantic anxious attachment and college adjustment, it is essential that new parents are given the skills to parent effectively. Classes or counseling interventions for new parents should emphasize skills and knowledge central to authoritative parenting. Specifically, parents might be taught how to set clear guidelines for their children while remaining supportive and responsive. Interventions could focus on how to use effective consequences for children, set limits with children, listen to children, and encourage and nurture children. It would also be helpful for parents to gain a greater understanding of how to discipline their children in a fair and consistent manner. It might also be useful to help new parents increase their knowledge of attachment and ways they can foster secure attachments with their children. For example, secure attachment in childhood is characterized by a child's ability to be autonomous and rely on the parent for support. The relationship is characterized by trust. Fostering this relationship is possible through authoritative parenting that is both nurturing and supportive. As the child grows, it is essential that the authoritative parent continues to provide clear and consistent expectations and discipline as well as scaffolding and support for growth and autonomy. In turn, the child is likely to form a secure attachment with the caregiver that is not characterized by anxiety or avoidance.

### **Limitations and Future Research Directions**

The findings and implications of this study must be considered within its limitations. Generalizability of the study was limited to undergraduate students living in the Rocky Mountain region; the sample might not have been reflective of the greater U.S. population. It is noteworthy that the primary campus from which the sample was recruited includes 36% first generation students, is predominantly Caucasian, followed by students who identify as Hispanic, and is primarily students who are “in-state.” These are characteristics of many universities in the west and mid-west and should be accounted for when generalizing this study’s findings. Future research in this area could be expanded to include a more diverse sample. For example, the current study’s sample included more junior and senior students than freshman and sophomore students. Future research should aim for more equality across these classes. In addition, the sample obtained was primarily Caucasian; it might be useful to replicate this study with a greater representation of different ethnic groups (e.g., African American, Hispanic, Asian American, Middle Eastern, and other ethnic groups). Lastly, special consideration was not given to identifying or reporting the sexual orientation of participants. In considering romantic attachment, this might play an important role and future research might opt to include it in demographic questionnaires. It might also be useful to consider participants’ statuses as international students as this might influence overall college adjustment as well as attachment and parenting style. It is also noteworthy that the sample in this study had a broad age range. It is possible that age had an effect on the variables studied, especially parental attachment. Future research might opt to specify a more condensed age range sample.

The study was also limited by the sample size. The study utilized multiple analyses, which could cause an inflated Type I error rate. While a Bonferroni adjusted alpha level was used to account for this, it remained a potential limitation because it was not clear how much the Type I error rate might have increased due to the multiple analyses. The use of the Bonferroni adjusted alpha might have been overly conservative, leading to denial of significance when significance might have existed. Use of self-report scales made the study inherently subjective and also presented the limitation of a mono-method bias. The singular data collection method (self-report surveys) threatened the validity of the study; information gathered could be more complete and objective if other measures such as observation were utilized. Future research might benefit from the use of multiple methods such as observation to avoid the limitation of subjectivity in self-report measures.

Another consideration related to the measures in the current study was the use of the score on overall college adjustment. This score was utilized because of supporting research suggesting one dominant factor on this scale. However, future researchers should consider examining the different subscales of college adjustment and how each one might be associated with romantic attachment. It might become apparent that romantic attachment anxiety is associated with specific areas of college adjustment and not associated with other areas. This would lend greater information regarding theoretical and practical implications.

Another possible limitation in this study was that participants attempted to portray themselves in an overly positive or negative manner or in way they assumed was expected. Similarly, the data collected relied on participants' retrospective reports that

were likely not as accurate as observable, current data. A longitudinal study would allow data collection over a longer period of time, thus avoiding the limitation of retrospective reports. Specifically, future studies should seek to collect data on parenting style when an individual is being parented and then collect data at a later time on college adjustment when the individual has entered college.

In conducting future studies, researchers should also consider utilizing a demographic questionnaire with fewer mutually exclusive categories. For example, students might identify as “divorced” and “dating.” In the current study, this demographic question required students to choose one identification. It might also be useful to include additional categories such as “partnered” or “living together” to obtain a more holistic view of participants’ relationship statuses.

Another threat to the validity of this study was missing data. A few participants filled out only a small portion of the surveys, choosing to stop participation before completion of all surveys. Furthermore, some participants did not answer all of the items, resulting in missing data. To help prevent missing data, future researchers might utilize online data collection tools to lessen this threat by requiring all responses to be completed in order to be included in the analyses.

Given that random sampling was not a practical method in this study, it is possible that results found were due, in part, to the sample that chose to participate in the study. Similarly, participants’ attitudes developed while taking the questionnaire might have affected the results and generalizability of results, even though clear instructions were given to maintain some control over this threat. Lastly, the analyses were

correlational. Therefore, the results reported were associations and were not causal; thus, cause and effect should not be inferred.

The current study utilized regression models to understand the relationships of the variables. The results indicated direct associations between authoritative parenting style and the variables of avoidant attachment to primary caregiver, anxious attachment to primary caregiver, and romantic attachment avoidance, and the direct association between romantic attachment anxiety and college adjustment. It is possible that romantic attachment mediated the relationship between parental attachment and college adjustment. Specifically, it is possible there were indirect associations between parenting style, attachment to primary caregiver, and the outcome variable of college adjustment, which were not assessed due to the limitations of the regression models utilized. For instance, it is possible that the impact of attachment to primary caregiver on college adjustment was moderated by the variables of anxious and avoidant romantic attachment. However, to assess the variables as moderator variables while accounting for measurement error, it would be helpful to complete different analyses. A moderator effect could be tested utilizing multiple regression and examining the interaction effect of romantic attachment and parental attachment in addition to the main effect of romantic attachment on overall college adjustment (Holmbeck, 1997). Holmbeck (1997) noted that regression might underestimate the effect size of an interaction term; therefore, structural equation modeling might be preferred to ascertain whether or not the variable of romantic attachment served as a moderator. However, structural equation modelling with interaction effects would require a much larger sample size than that of the current study. To develop greater understanding of the relationships among these constructs,



future research should utilize structural equation modeling, thus allowing simultaneous incorporation of multiple regression analyses.

In addition to the aforementioned limitations and potential directions, there are other areas future researchers might consider regarding the current study. While a significant amount of variance in college adjustment was accounted for by the variables of parenting style and attachment, it is likely other variables also contributed. Future studies should consider incorporation of variables such as the student's residence (i.e., at home or in residence hall), the student's status as an international or transfer student, if the student has children of his/her own, and the student's previous schooling experiences (i.e., homeschooled, private, or public school). These variables might affect overall college adjustment as well as romantic and parental attachment. Given that research was not consistent in identifying these other factors, it might be useful for future studies to incorporate a qualitative component to address these possible confounding variables. These variables might be identified through the use of interviews or focus groups.

### **Conclusions**

The present study was successful in adding to the knowledge base around the variables of attachment, parenting style, and college adjustment. The implications are far reaching for practitioners and future researchers. Most importantly, it is influential in helping practitioners to understand what affects college adjustment and where they can be most useful in offering interventions and prevention strategies. It is essential that counseling psychologists consider the relationship between romantic attachment and college adjustment when working with students who are struggling in college. These students might benefit from exploration and understanding of how they remembered

being parented as well as what their attachment with their primary caregiver from childhood looked like. Similarly, it is necessary for practitioners working with parents to consider implementing prevention strategies and parenting education to encourage authoritative parenting as this is clearly linked with attachment security later in life. This study also served as a gateway into areas for future exploration to gain greater understanding about how college students could be assisted in their adjustment. Given the conclusions, the next step includes further exploring of romantic attachment, especially romantic attachment anxiety, and how this could be addressed with a focus on improving overall adjustment. This research might include assessment of specific areas of college adjustment impacted by romantic attachment anxiety. Furthermore, future steps in research should include consideration of the most effective ways to explore parenting style with college students in order to increase understanding of how their attachments were influenced by their recollections of being parented. Results and conclusions from this study could be fully utilized by counseling psychologists working with students, those working with parents and families, and those conducting research.

## REFERENCES

- Ainsworth, M. D. (1979). Infant-mother attachment. *American Psychologist*, *34*, 932-937. doi:10.1037/0003-066X.34.10.932
- Ainsworth, M. D. (1989). Attachments beyond infancy. *American Psychologist*, *44*, 709-716. doi:10.1037/0003-066X.44.4.709
- Ainsworth, M. D., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of strange situation*. Hillsdale, NJ: Erlbaum.
- Andersson, P., & Perris, C. (2000). Perceptions of parental rearing and dysfunctional attitudes: The link between early experiences and individual vulnerability? *Nordic Journal of Psychiatry*, *54*, 405-409. doi:10.1080/080394800750061388
- Anton, W. D., & Reed, J. R. (1991). *College adjustment scales*. Lutz, FL: Psychological Assessment Resources, Inc.
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, *55*, 469-480. doi:10.1037/0003-066X.55.5.469
- Bartholomew, K. (1990). Avoidance of intimacy: An attachment perspective. *Journal of Social and Personal Relationships*, *7*, 147-178. doi:10.1177/026407590072001
- Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology*, *61*, 226-244. doi:10.1037/0022-3514.61.2.226

- Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology Monograph*, 4, 1-103. doi:10.1037/h0030372
- Baumrind, D. (1978). Parental disciplinary patterns and social competence in children. *Youth and Society*, 9, 239-276. doi:10.1177/0044118X7800900302
- Baumrind, D. (1991). The influence of parenting style on adolescent competence and substance use. *Journal of Early Adolescence*, 11, 56-95.  
doi:10.1177/02724316911111004
- Baumrind, D. (1996). The discipline controversy revisited. *Family Relations*, 45, 405-414. doi:10.2307/585170
- Bennet, D. A. (2001). How can I deal with missing data in my study? *Australian and New Zealand Journal of Public Health*, 25, 464-469.
- Bifulco, A., Moran, P. M., Ball, C., & Bernazzani, O. (2002). Adult attachment style. I: Its relationship to clinical depression. *Social Psychiatry and Psychiatric Epidemiology*, 37, 50-59. doi:10.1007/s127-002-8215-0
- Black, K. A., & Schutte, E. D. (2006). Recollections of being loved: Implications of childhood experiences with parents for young adults' romantic relationships. *Journal of Family Issues*, 27, 1459-1480. doi:10.1177/0192513X06289647
- Blysmá, W. H., Cozzarelli, C., & Sumer, N. (1997). Relation between adult attachment styles and global self-esteem. *Basic and Applied Social Psychology*, 19(1), 1-16.  
doi:10.1207/s15324834basp1901\_1
- Bowlby, J. (1969). *Attachment and loss: Vol. 1. Attachment*. New York: Basic Books.
- Bowlby, J. (1970). Disruption of affectional bonds and its effects on behavior. *Journal of Contemporary Psychotherapy*, 2(2), 75-86. doi:10.1007/BF02118173

- Bowlby, J. (1973). *Attachment and loss: Vol. 2. Separation: Anxiety and anger*. New York: Basic Books.
- Bowlby, J. (1977). The making and breaking of affectional bonds: I: Aetiology and psychopathology in the light of attachment theory. *British Journal of Psychiatry*, *130*, 421-431. doi:10.1192/bjp.130.3.201
- Bowlby, J. (1980). *Attachment and loss*. New York, NY: Basic Books.
- Bowlby, J. (1982). Attachment and loss: Retrospect and prospect. *American Journal of Orthopsychiatry*, *52*, 664-678. doi:10.1111/j.1939-0025.1982.tb01456.x
- Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult attachment: An integrative overview. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 46-76). New York, NY: Guilford Press.
- Buri, J. R. (1991). Parental authority questionnaire. *Journal of Personality Assessment*, *57*(1), 110-119. doi:10.1207/s15327752jpa5701\_13
- Buri, J. R., Louiselle, P. A., Misukanis, T. M., & Mueller, R. A. (1988). Effects of parental authoritarianism and authoritativeness on self-esteem. *Personality and Social Psychology Bulletin*, *14*, 271-282. doi:10.1177/0146167288142006
- Campbell, M. H., Palmieri, M., & Lasch, B. (2006). Concurrent validity of the College Adjustment Scales using comparison with the MMPI College Maladjustment Scale. *Psychological Reports*, *99*, 1003-1007. doi:10.2466/PR0.99.7.1003-1007
- Campbell, M. H., & Prichard, S. T. (2000). Factor structure of the College Adjustment Scales. *Psychological Reports*, *86*(1), 79-84. doi:10.2466/PR0.86.1.79-84

- Caspers, K.M., Cadoret, R.J., Langbehn, D., Yucuis, R., & Troutman, B. (2005). Contributions of attachment style and perceived social support to lifetime use of illicit substances. *Addictive Behaviors, 20*, 1007-1011.  
doi:10.1016/j.addbeh.2004.09.001
- Cicchetti, D., & Toth, S. L. (1998). The development of depression in children and adolescents. *American Psychologist, 53*, 221-241.  
doi:10.1037/0003-066X.53.2.221
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, New Jersey: Lawrence Erlbaum Associates, Publishers.
- Collins, N. L., & Read, S. J. (1990). Adult attachment, working models, and relationship quality in dating couples. *Journal of Personality and Social Psychology, 58*, 644–663. doi:10.1037/0022-3514.58.4.644
- Cooper, M. L., Shaver, P. R., & Collins, N. L. (1998). Attachment styles, emotion regulation and adjustment in adolescence. *Journal of Personality and Social Psychology, 74*, 1380-1397. doi:10.1037/0022-3514.74.5.1380
- Craddock, A. E., Church, W., & Sands, A. (2009). Family of origin characteristics as predictors of perfectionism. *Australian Journal of Psychology, 61*(3), 136-144.  
doi:10.1080/00049530802239326
- Crowell, J. A., Fraley, C. R., & Shaver, P. R. (1999). Measurement of individual differences in adolescent and adult attachment. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 434-465). New York, NY: Guilford Press.

- Crowne, D. P., & Marlow, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology, 24*(4), 349-354.  
doi:10.1037/h0047358
- Cummings-Robeau, T. L., Lopez, F. G., & Rice, K. G. (2009). Attachment-related predictors of college students' problems with interpersonal sensitivity and aggression. *Journal of Social and Clinical Psychology, 28*, 364-391.  
doi:10.1521/jscp.2009.28.3.364
- Cutrona, C. E., & Russell, D. (1987). The provisions of social relationships and adaptation to stress. In W. H. Jones & D. Perlman (Eds.), *Advances in personal relationships* (Vol. 1, pp. 37-67). Greenwich, CT: JAI Press.
- Darling, C. A., McWey, L. M., Howard, S. N., & Olmstead, S. B. (2007). College student stress: The influence of interpersonal relationships on sense of coherence. *Stress and Health, 23*, 215-229. doi:10.1002/smi.1139
- Darling, S. D., & Steinberg, L. (1993). Parenting style as context: An integrative model. *Psychological Bulletin, 113*, 487-496. doi:10.1037/0033-2909.113.3.487
- Davila, J., & Cobb, R. J. (2004). Predictors of change in attachment security during adulthood. In W. S. Rholes & J. A. Simpson (Eds.), *Adult attachment: Theory, research, and clinical implications* (pp. 133-156). New York, NY: Guilford Press.
- De Wolff, M.S., & van IJzendoorn, M.H. (1997). Sensitivity and attachment: A meta-analysis on parental antecedents of infant attachment. *Child Development, 68*, 571-591. doi:10.2307/1132107
- Dominguez, M. M., & Carton, J. S. (1997). The relationship between self-actualization and parenting style. *Journal of Social Behavior and Personality, 12*, 1093-1100.

- Enochs, W. K., & Roland, C. B. (2006). Social adjustment of college freshman: The importance of gender and living environment. *College Student Journal, 40*(1), 63-73.
- Erikson, E. H. (1968). *Identity: Youth and crisis*. New York: Norton.
- Eschun, S. (2006). Relationship between outlook to life and college adjustment: An analysis of the role of optimism in stress appraisal and overall mental health among college students. In M.V. Landow (Ed.), *Stress and mental health of college students* (pp. 187-201). East Stroudsburg University, PA: Nova Science Publishers.
- Fairchild, A. J., & Finney, S. J. (2006). Investigating validity evidence for the Experiences in Close Relationships-Revised Questionnaire. *Educational and Psychological Measurement, 66*(1), 116-135. doi:10.1177/0013164405278564
- Fass, M. E., & Tubman, J. G. (2002). The influence of parental and peer attachment on college students' academic achievement. *Psychology in the Schools, 39*, 561-573. doi:10.1002/pits.10050 doi:10.1002/pits.10050
- Feeney, J. A., & Noller, P. (1990). Attachment style as a predictor of adult romantic relationships. *Journal of Personality and Social Psychology, 58*, 281-291. doi:10.1037/0022-3514.58.2.281
- Feeney, J. A., & Noller, P. (1996). *Adult attachment*. Thousand Oaks, CA: Sage
- Field, A. (2005). *Discovering statistics using SPSS* (2<sup>nd</sup> ed.). Thousand Oaks, CA: Sage Publications, Inc.



- Fraley, R. C. (2005). *Information on the Experiences in Close Relationships-Revised (ECR-R) adult attachment questionnaire*. Retrieved from <http://internal.psychology.illinois.edu/~rcfraley/measures/ecrr.htm>
- Fraley, R. C., Heffernan, M. E., Brumbaugh, C. C., & Vicary, A. M. (2011). The experiences in close relationships--Relationship structures questionnaire: A method for assessing attachment orientations across relationships. *Psychological Assessment, 23*, 615-625. doi:10.1037/a0022898
- Fraley, R. C., & Waller, N. G. (1998). Adult attachment patterns: A test of the typological mode. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 77-114). New York: Guilford Press.
- Fraley, R. C., Waller, N. G., & Brennan, K. A. (2000). An item response theory analysis of self-report measures of adult attachment. *Journal of Personality and Social Psychology, 78*, 350-365. doi:10.1037/0022-3514.78.2.350
- Frey, L. L., Beesley, D., & Miller, M. R. (2006). Relational health attachment: A psychological distress in college women and men. *Psychology of Women Quarterly, 30*, 303-311. doi:10.1111/j.1471-6402.2006.00298.x
- Gall, M. D., Gall, J. P., & Borg, W. R. (2007). *Educational research: An introduction* (8<sup>th</sup> ed.). New York: Pearson Education, Inc.
- Gerlsma, C. (2000). Recollections of parental care and quality of intimate relationships: The role of re-evaluating past attachment experiences. *Clinical Psychology and Psychotherapy, 7*, 289-295. doi:10.1002/1099-0879(200010)7:4
- Green, S.B. (1991). How many subjects does it take to do a regression analysis? *Multivariate Behavioral Research, 26*, 499-510.

- Groth-Marnat, G. (2009). *Handbook of psychological assessment*. Hoboken, NJ: John Wiley & Sons, Inc.
- Güngör, D., & Bornstein, M. H. (2010). Culture-general and –specific associations of attachment avoidance and anxiety with perceived parental warmth and psychological control among Turk and Belgian adolescents. *Journal of Adolescence*, 22, 593-602. doi:10.1016/j.adolescence.2009.12.005
- Hankin, B. L., Kassel, J. D., & Abela, J. R. (2005). Adult attachment dimensions and specificity of emotional distress symptoms: Prospective investigations of cognitive risk and interpersonal stress generation as mediating mechanisms. *Personality and Social Psychology Bulletin*, 31, 136-151.  
doi:10.1177/0146167204271324
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52, 511-524.
- Heer, P. (2008). The relationship between college students' retrospective accounts of parenting styles and self-reported adult attachment styles. *Dissertation Abstracts International: Section B: The Sciences and Engineering*, Retrieved from <http://0-search.proquest.com.source.unco.edu/docview/621745602?accountid=12832>.
- Hickman, G. P., Bartholomae, S., & McKenry, P. C. (2000). Influence of parenting styles on the adjustment and academic achievement of traditional college freshman. *Journal of College Student Development*, 41(1), 41-54.

- Holmbeck, G. (1997). Toward terminological, conceptual, and statistical clarity in the study of mediators and moderators: Examples from the child-clinical and pediatric psychology literatures. *Journal of Consulting and Clinical Psychology, 65*(4), 599-610.
- Isabella, R. (1993). Origins of attachment: Maternal interactive behavior across the first year. *Child Development, 64*, 605-621. doi:10.2307/1131272
- Karavasilis, L., Doyle, A.B., & Markiewicz, D. (2003). Associations between parenting style and attachment orientation in middle childhood and early adolescence. *International Journal of Behavioral Development, 27*, 153-164.
- Kassel, J. D., Wardle, M., & Roberts, J. E. (2006). Adult attachment security and college student substance use. *Addictive Behaviors, 32*, 1164-1176.  
doi:10.1016/j.addbeh.2006.08.005
- Kenny, M. E. (1987). The extent and function of parental attachment among first year college students. *Journal of Youth and Adolescence, 16*(1), 17-29.  
doi:10.1007/BF02141544
- Kenny, M. E., & Donaldson, G. A. (1991). Contributions of parental attachment and family structure to the social and psychological functioning of first year college students. *Journal of Counseling Psychology, 38*, 479-486.  
doi:10.1037/0022-0167.38.4.479
- Kenny, M. E., & Rice, K. G. (1995). Attachment to parents and adjustment in late adolescent college students: Current status, applications, and future considerations. *The Counseling Psychologist, 23*, 433-456.  
doi:10.1177/0011000095233003

- Kim, H., & Chung, R. H. (2003). Relationship of recalled parenting style to self-perception in Korean American college students. *Journal of Genetic Psychology, 164*, 481-492. doi:10.1080/00221320309597891
- Klein, M. B., & Pierce, Jr., J. D. (2009). Parental care aids, but parental overprotection hinders, college adjustment. *Journal of College Student Retention, 11*(2), 167-181.
- Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3<sup>rd</sup> ed.). New York, NY: The Guilford Press.
- Lamborn, S., Mounts, N., Steinberg, L., & Dornbusch, S. (1991). Patterns of competence and adjustment among adolescents from authoritative, authoritarian, indulgent, and neglectful homes. *Child Development, 62*, 1049-1065. doi:10.2307/1131151
- Lapsley, D. K., & Edgerton, J. (2002). Separation-Individuation, adult attachment style, and college adjustment. *Journal of Counseling and Development, 80*, 484-492.
- Lapsley, D. K., Rice, K. G., & FitzGerald, D. P. (1990). Adolescent attachment, identity, and adjustment to college: Implications for the continuity of adaptation hypothesis. *Journal of Counseling and Development, 68*, 561-566.
- Lopez, F. G., & Fons-Scheyd, A. (2008). Role balance and depression among college students: The moderating influence of adult attachment orientations. *Journal of College Counseling, 11*(2), 133-146.
- Lopez, F. G., & Gormley, B. (2002). Stability and change in adult attachment style over the first-year college transition: Relations to self-confidence, coping, and distress patterns. *Journal of Counseling Psychology, 49*(3), 355-364.  
doi:10.1037//0022-0167.49.3.355

- Maccoby, E., & Martin, J. (1983). Socialization in the context of the family: Parent-child interaction. In E.M. Hetherington (Ed.), P.H. Mussen (Series Ed.), *Handbook of child psychology: Vol. 4. Socialization, personality and social development* (pp. 1-101). New York: Wiley.
- Martin, W. E. (1998). Review of the College Adjustment Scales [Review of the measure *College Adjustment Scales* by W. D. Anton & J. R. Reed]. *Mental Measurements Yearbook, 13*, 72.
- Mattanah, J. H., Hancock, G. R., & Brand, B. L. (2004). Parental attachment, separation-individuation, and college student adjustment: A structural equation analysis of mediational effects. *Journal of Counseling Psychology, 51*(2), 213-225.  
doi: 10.1037/0022-0167.51.2.213
- Mattanah, J. H. Lopez, F. G., & Govern, J. M. (2011). The contributions of parental attachment bonds to college student development and adjustment: A meta-analytic review. *Journal of Counseling Psychology, 58*(4), 565-596.  
doi: 10.1037/a0024635
- McCormick, C. B., & Kennedy, J. H. (1994). Parent-child attachment working models and self-esteem in adolescence. *Journal of Youth and Adolescence, 23*(1), 1-18.  
doi:10.1007/BF01537139
- McElwain, N. L., & Booth-LaForce, C. (2006). Maternal sensitivity to infant distress and nondistress as predictors of infant-mother attachment security. *Journal of Family Psychology, 20*, 247-255. doi:10.1037/0893-3200.20.2.247

- McKinney, C., Donnelly, R., & Renk, K. (2008). Perceived parenting, positive and negative perceptions of parents, and late adolescent emotional adjustment. *Child and Adolescent Mental Health, 13*(2), 66-73.  
doi:10.1111/j.1475-3588.2007.00452.x
- Melendez, M. C., & Melendez, N. B. (2010). The influence of parental attachment on the college adjustment of White, Black, Latina/Hispanic women: A cross cultural investigation. *Journal of College Student Development, 51*, 419-435.  
doi:10.1353/csd.0.0144
- Meyer, T. J., Miller, M. L., Metzger R. L. & Borkovek, T. D. (1990). Development and validation of the Penn State worry questionnaire. *Behaviour Research and Therapy, 28*(6), 487-495.
- Mills, K. (2010). *Parenting styles influence on locus of control, self-efficacy and academic adjustment in college students*. Retrieved from <http://0-search.proquest.com.source.unco.edu/docview/787895128?accountid=12832>.
- Mundfrom, D. J., Perrett, J. J., Schaffer, J., Piccone, A., & Roozeboom, M. (2006). Bonferroni adjustments in tests for regression coefficients. *Multiple Linear Regression Viewpoints, 32*(1). 1-6.
- Mundfrom, D. J., Shaw, D. G., & Ke, T. L. (2005). Minimum sample size recommendations for conducting factor analyses. *International Journal of Testing, 5*(2), 159-168. doi:10.1207/s15327574ijt0502\_4
- Nafziger, M. A., Couillard, G. C., & Smith, T. B. (1997). An evaluation of the clinical utility of the college adjustment scales. *College Student Journal, 31*, 516-518.

- Nafziger, M. A., Couillard, G. C., Smith, T. B., & Wiswell, D. K. (1998). Normative data on the College Adjustment Scales from a university counseling center. *Journal of College Student Development, 39*, 283-295.
- Neal, J., & Frick-Horbury, D. (2001). The effects of parenting styles and childhood attachment patterns on intimate relationships. *Journal of Instructional Psychology, 28*(3), 178-183.
- Parade, S. H., Leerkes, E. M., & Blankson, A. N. (2010). Attachment to parents, social anxiety, and close relationships of female students over the transition to college. *Journal of Youth and Adolescence, 39*(2), 127-137.
- Pedhazur, E. (1997). *Multiple regression in behavioral research: Explanation and prediction* (3<sup>rd</sup> ed.). Orlando, FL: Harcourt Brace.
- Prichard, M. A., Wilson, G. S., & Yamnitz, B. (2007). What predicts adjustment among college students? A longitudinal panel study. *Journal of American College Health, 56*, 15-21. doi:10.3200/JACH.56.1.15-22
- Rosen, K. S., & Rothbaum, F. (1993). Quality of parental caregiving and security of attachment. *Developmental Psychology, 29*, 358-367.  
doi:10.1037/0012-1649.29.2.358
- Russell, D. W. (1996). UCLA loneliness scale (Version 3): Reliability, validity, and factor structure. *Journal of Personality Assessment, 66*(1), 20-40.
- Santorelli, N, T. (2010). *Developmental antecedents of symptoms of adult separation anxiety in young adult college students*. Retrieved from [http://scholarworks.gsu.edu/psych\\_diss/75](http://scholarworks.gsu.edu/psych_diss/75)

- Schaefer, E. S. (1965). Children's reports of parental behavior, An inventory. *Child Development, 36*, 413-424. doi:10.2307/1126465
- Scharfe, E., & Bartholomew, K. (1994). Reliability and stability of adult attachment patterns. *Personal Relationships, 1*, 23-43.  
doi:10.1111/j.1475-6811.1994.tb00053.x
- Shaver, P. R., & Mikulincer, M. (2002). Attachment related psychodynamics. *Attachment and Human Development, 4*(2), 133-161. doi:10.1080/14616730210154171
- Sheehan, G., & Noller, P. (2002). Adolescents' perceptions of differential parenting: Links with attachment style and adolescent adjustment. *Personal Relationships, 9*, 173-190. doi:10.1111/1475-6811.00011
- Shemmings, D. (2006). Using adult attachment theory to differentiate adult children's internal working models of later life filial relationships. *Journal of Aging Studies, 20*, 177-191. doi:10.1016/j.jaging.2005.12.001
- Shorey, H. S., Snyder, C. R., Yang, X., & Lewin, M. R. (2003). The role of hope as a mediator in recollected parenting, adult attachment, and mental health. *Journal of Social and Clinical Psychology, 22*, 685-715. doi:10.1521/jscp.22.6.685.22938
- Sibley, C. G., Fischer, R., & Liu, J. H. (2005). Reliability and validity of the Revised Experiences in Close Relationships (ECR-R) self-report measure of adult romantic attachment. *Personality and Social Psychology Bulletin, 31*, 1524-1536.  
doi:10.1177/0146167205276865



- Sibley, C. G. & Liu, J. H. (2004). Short-term temporal stability and factor structure of the revised experiences in close relationships (ECR-R) measure of adult attachment. *Personality and Individual Differences, 36*, 969-975.  
doi:10.1016/S0191-8869(03)00165-X
- Simpson, J. A. (1990). Influence of attachment styles on romantic relationships. *Journal of Personality and Social Psychology, 59*, 971-980.  
doi:10.1037/0022-3514.59.5.971
- Slaney, K. L., & Maraun, M. D. (2008). A proposed framework for conducting data-based test analysis. *Psychological Methods, 13*, 465-476. doi:10.1037/a0014269
- Star, E. R. (1998). Review of the College Adjustment Scales [Review of the measure *College Adjustment Scales* by W. D. Anton & J. R. Reed]. *Mental Measurements Yearbook, 13*, 72.
- Steinberg, L., Lamborn, S. D., Darling, N., Mounts, N. S., & Dornbusch, S. M. (1994). Over-time changes in adjustment and competence among adolescents from authoritative, authoritarian, indulgent, and neglectful families. *Child Development, 65*, 754-770. doi:10.2307/1131416
- Stevens, J. (1996). *Applied multivariate statistics for the social sciences* (3<sup>rd</sup> ed.).  
Matwah, NJ: Lawrence Earlbaum Associates, Inc.
- Strage, A., & Brandt, T. (1999). Authoritative parenting and college students' academic adjustment and success. *Journal of Educational Psychology, 91*(1), 146-156.  
doi:10.1037/0022-0663.91.1.146

- Thompson, R. A. (2006). The development of the person: Social understanding, relationships, conscience, self. In N. Eisenberg (Ed.), *Handbook of child psychology: Vol. 3 Social, emotional and personality development* (6<sup>th</sup> ed., pp. 24-98). Hoboken, NJ: Wiley.
- Timpano, K. R., Keough, M. E., Mahaffey, B., Schmidt, N. B., & Abramowitz, J. (2010). Parenting and obsessive compulsive symptoms: Implications of authoritarian parenting. *Journal of Cognitive Psychotherapy: An International Quarterly*, 24(3), 151-164. doi:10.1891/0889-8391.24.3.151
- Trinke, S. J., & Bartholomew, K. (1997). Hierarchies of attachment relationships in young adulthood. *Journal of Social and Personal Relationships*, 14, 603- 625. doi:10.1177/0265407597145002
- van IJzendoorn, M. H., Schuengel, C., & Bakersmans-Kranenberg, M. J. (1999). Disorganized attachment in early childhood: Meta-analysis of precursors, concomitants, and sequelae. *Development and Psychopathology*, 11, 225-249. doi:10.1017/S0954579499002035
- Weems, C. F., Berman, S. L., Silverman, W. K., & Rodriguez, E. T. (2002). The relation between anxiety sensitivity and attachment style in adolescence and early adulthood. *Journal of Psychopathology and Behavioral Assessment*, 24(3), 159-168. doi:10.1023/A:1016058600416
- Wei, M., Mallinckrodt, B., Larson, L. M., & Zakalik, R. A. (2005). Adult attachment, depressive symptoms, and validation from self versus others. *Journal of Counseling Psychology*, 52, 368-377. doi:10.1037/0022-0167.52.3.368

- Wei, M., Russel, D. W., & Zakalik, R. A. (2005). Adult attachment, social self-efficacy, self-disclosure, loneliness, and subsequent depression for freshman college students: A longitudinal study. *Journal of Counseling Psychology, 52*, 602-614. doi:10.1037/0022-0167.52.4.602
- Weiss, L. H., & Schwarz, J. C. (1996). The relationship between parenting types and older adolescents' personality, academic achievement, adjustment, and substance use. *Child Development, 67*, 2101-2114. doi:10.2307/1131612
- Wright, S. L., & Perrone, K. M. (2010). An examination of the role of attachment and efficacy in life satisfaction. *The Counseling Psychologist, 38*, 796-823. doi:10.1177/0011000009359204
- Zhang, F., & Labouvie-Vief, G. (2004). Stability and fluctuation in adult attachment style over a 6-year period. *Attachment and Human Development, 6*, 419-437. doi:10.1080/1461673042000303127

**APPENDIX A**

**INTRODUCTORY INFORMATION**

Hello, I am currently a Counseling Psychology doctoral student pursuing research in the areas of parenting, attachment, and college adjustment. In my current study, I am collecting data on these areas through use of self-report surveys. The surveys ask for responses on a variety of questions related to how individuals were parented, their current attachment to a romantic partner, their current attachment to their primary caregiver from childhood, and their overall college experience. The results from this study will inform many different areas of counseling psychology and student development in gaining an understanding of the components that contribute to college adjustment and the college experience.

Participation in this study is voluntary. You may decide not to participate in this study and if you begin participation you may still decide to stop and withdraw at any time. If you choose to participate, you will be offered a chance to enter a drawing to win one of 3 iTunes gift cards to be awarded upon completion of the study. If you have any questions or comments, please contact me via email or phone using the information provided on consent form. I hope that you will take the time to fill out this survey information.

Thank you,  
Emily Richter, M.A.

**APPENDIX B**  
**DEMOGRAPHIC QUESTIONNAIRE**

Please fill out the following demographic information. Your responses will be anonymous.

1. Gender:

Male

Female

2. Age: \_\_\_\_\_

3. Ethnicity (Mark all that apply):

Caucasian

Hispanic

African American

Asian American

Other: Please Specify: \_\_\_\_\_

4. What College do you currently attend?

University of Northern Colorado

Colorado State University

Front Range Community College

Aims Community College

Other: Please Specify: \_\_\_\_\_

5. What is your classification in college?

Freshman

Sophomore

Junior

Senior

5. Number of years in college: \_\_\_\_\_

6. Relationship Status (Mark all that apply):

Single

Dating

Engaged

Married

Divorced

Other: Please Specify: \_\_\_\_\_

7. When in a relationship with another person, what is your estimate of the number of months together you believe are needed for the relationship to be considered a romantic relationship? \_\_\_\_\_

8. Are you currently in a romantic relationship?

Yes

No

Never been in a romantic relationship

9. If currently in a romantic relationship, how many months have you been in the relationship?

\_\_\_\_\_

10. If not currently in a romantic relationship, how many months ago did the romantic relationship end?

\_\_\_\_\_

11. If not currently in a romantic relationship, how many months did your most recent romantic relationship last?

\_\_\_\_\_

12. Please indicate your primary caregiver when you were growing up.

\*Primary caregiver is the person who you considered to have taken primary responsibility for you growing up.

\*If you lived with *more than one* caregiver, please indicate which *one* you consider to have taken more responsibility for you (for example, who was most responsible for caring for you, setting rules for you, managing your activities, disciplining you, etc.?)

\*If you cannot identify one primary caregiver and you view both parents as your primary caregiver, then pick the parent whose parenting style stands out to you the most while growing up.

Mother

Father

Other: Please Specify: \_\_\_\_\_



**APPENDIX C**

**PARENTAL AUTHORITY QUESTIONNAIRE**

Due to copyright restrictions,  
the Parental Authority Questionnaire was removed.

**APPENDIX D**

**THE EXPERIENCES IN CLOSE RELATIONSHIPS-  
REVISED QUESTIONNAIRE**

Due to copyright restrictions,  
The Experiences in Close Relationships-Revised Questionnaire  
was removed.

**APPENDIX E**

**THE EXPERIENCES IN CLOSE RELATIONSHIPS-  
RELATIONSHIP STRUCTURES QUESTIONNAIRE**

Due to copyright restrictions,  
The Experiences in Close Relationships-Relationship  
Structures Questionnaire (ECR-RS)  
was removed.

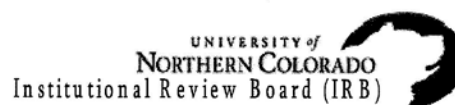
**APPENDIX F**  
**COLLEGE ADJUSTMENT SCALES**

Due to copyright restrictions,  
College Adjustment Scales  
was removed.



**APPENDIX G**

**INSTITUTIONAL REVIEW BOARD APPROVAL**



October 6, 2011

TO: Megan Babkes Stellino  
School of Sport and Exercise Science

FROM: The Office of Sponsored Programs

RE: Exempt Review of *The Relationship of Perceived Parenting Style and Current Attachment Style with Primary Caregiver, Romantic Partner, and College Adjustment*, submitted by Emily Richter (Research Advisor: Stephen Wright)

The above proposal is being submitted to you for exemption review. When approved, return the proposal to Sherry May in the Office of Sponsored Programs.

I recommend approval ✓

REVISED

Megan Babkes Stellino 10/17/11  
Signature of Co-Chair Date

The above referenced prospectus has been reviewed for compliance with HHS guidelines for ethical principles in human subjects research. The decision of the Institutional Review Board is that the project is exempt from further review.

IT IS THE ADVISOR'S RESPONSIBILITY TO NOTIFY THE STUDENT OF THIS STATUS.

Comments:

• email 10/12  
• recruitment ~~protocols~~ protocols - attached  
• CAS? - copyright protected ~~at~~  
• minor As to consent ✓ - attached.

25 Kepner Hall ~ Campus Box #143  
Greeley, Colorado 80639  
Ph: 970.351.1907 ~ Fax: 970.351.1934

**APPENDIX H**  
**INFORMED CONSENT**

UNIVERSITY of  
NORTHERN COLORADO



CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH  
UNIVERSITY OF NORTHERN COLORADO

Project Title: The relationship of perceived parenting style and current attachment style with primary caregiver, romantic partner, and college adjustment.

Primary Researcher: Emily Richter, M.A; College of Education and Behavioral Sciences

Research Advisor: Stephen Wright, Ph.D.; College of Education and Behavioral Sciences

Phone: (970)-351-1645

E-mail: Emily.Richter@unco.edu

Purpose and Description: The purpose of this study is to investigate the relationship between perceived parenting style, adult attachment to primary caregiver, adult attachment to romantic partner, and overall college adjustment in a college student population. As a participant, you will be asked to complete a demographic questionnaire and a series of survey instruments about your experiences with your parent(s), your current close relationships, and your experience in college. It will take you approximately 30 minutes to complete the survey.

Your responses to the survey will be treated as anonymous and data will be stored at the University of Northern Colorado. The primary researcher and research advisor will be the only individuals that have access to the data. Your responses will not contain any identifiable information and will only be identified by numerical indicators. The risks inherent in this study are minimal and no greater than those normally encountered during regular classroom participation. One benefit of participating in this study is that you may increase your self-awareness in the following areas: relationship interactions, experience in college, experiences with parent(s). There are also indirect benefits to the discipline as a result of what is learned from the research project.

Participation in this study is voluntary. You may decide not to participate in this study and if you begin participation you may still decide to stop and withdraw at any time. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled. If you are at least 18 years of age, having read the above and having had an opportunity to ask any questions, please complete the following survey materials. You may keep this form for future reference. If you have any concerns about your selection or treatment as a research participant, please contact the Sponsored Programs and Academic Research Center, Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970-351-1907.

**APPENDIX I**  
**DEBRIEFING FORM**

UNIVERSITY *of*  
NORTHERN COLORADO



We thank you for participating in this research study. The study was conducted to research the relationship between reported parenting styles, attachment experiences, and undergraduate college experiences. Specifically, the study was designed to assess retrospective reports of parenting style, current levels of attachment with romantic partner, current levels of attachment with primary caregiver from childhood and overall college adjustment. Past research suggests that levels of attachment security are related to the previous mentioned variables and that these variables may affect overall college adjustment. The goal of the study was to determine the extent to which these variables are related and how each one might explain differences in another.

Should you like to discuss your experiences taking this survey or any resulting thoughts or concerns you have about the material presented, you are urged to contact the University of Northern Colorado College Counseling Center at 970.351.2496 or the Psychological Services Clinic at 970.351.1645.