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# The Role of Attachment in Faculty Mentoring

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FLORIDA INTERNATIONAL UNIVERSITY

Miami, Florida

THE ROLE OF ATTACHMENT IN FACULTY MENTORING

A dissertation submitted in partial fulfillment of the

requirements for the degree of

DOCTOR OF EDUCATION

in

ADULT EDUCATION AND HUMAN RESOURCE DEVELOPMENT

by

Rimjhim Banerjee

2012

To: Dean Delia C. Garcia  
College of Education

This dissertation, written by Rimjhim Banerjee, and entitled The Role of Attachment in Faculty Mentoring, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this dissertation and recommend that it be approved.

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Date of Defense: July 31, 2012

The dissertation of Rimjhim Banerjee is approved.

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Dean Delia C. Garcia  
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Florida International University, 2012

## DEDICATION

To my parents Ashoke and Monica Banerji for instilling the love of learning in me, to my loving husband Carlos for always holding the light of encouragement for me, and to the light of my eyes – my son Utsav, and my daughter Rani for keeping the joy of this pursuit alive in me. Last but not the least, I dedicate this work to the memory of my late uncle, Dr. Brij Saxena, a brilliant scholar and scientist, who would have been proud of me today, but who passed away on the day of my dissertation defense.

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ABSTRACT OF THE DISSERTATION  
THE ROLE OF ATTACHMENT IN FACULTY MENTORING

by

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Florida International University, 2012

Miami, Florida

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This nonexperimental, correlational study examined the relationships between the attachment styles of mentors ( $N = 52$ ) and protégés ( $N = 50$ ), mentoring as measured by psychosocial support and career support, job satisfaction, organizational commitment, and intent to turnover. An Internet-based self-report survey instrument consisting of six scales were administered to the participants of a formal faculty mentoring program. Hypotheses were tested through correlational and hierarchical regression analytic procedures.

Results of this study supported the hypotheses proposed in this study. For mentors and protégés, the variables attachment and mentoring were significantly associated with each of the outcome variables job satisfaction, organizational commitment, and intent to turnover. Furthermore, in the case of mentors after controlling for gender and ethnicity, attachment and mentoring specifically psychosocial mentoring predicted unique variance in job satisfaction ( $R^2 = .43$ ), organizational commitment ( $R^2 = .47$ ), and intent to turnover ( $R^2 = -.28$ ). For protégés, while secure attachment and mentoring predicted unique variance in job satisfaction ( $R^2 = .65$ ), only secure attachment predicted unique variance in organizational commitment ( $R^2 = .55$ ), and intent to turnover ( $R^2 = -.58$ ).

Zero-order correlations as well as the regression models indicated medium to large effect sizes, supporting the empirical and practical relevance of understanding the relationships between attachment, mentoring, and organizational outcomes. Responses to open-ended survey questions by mentors converged with the quantitative results and additionally indicated that mentors experienced learning from their protégés. They experienced job satisfaction by providing both career support and psychosocial support. Responses to open-ended questions by protégés indicated that they experienced satisfaction as they received psychosocial support from their mentors in the form of trust, friendship, advice, and help.

The study specifically informs the field of faculty mentoring research by linking faculty job satisfaction, organizational commitment, and turnover intentions to attachment styles and mentoring. Practitioners in higher education developing faculty mentoring programs can use this information in the selection of mentors and protégés.

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# CHAPTER I

## INTRODUCTION

This correlational study examined the relationship between the attachment styles of mentors and protégés, and mentoring functions and outcomes. This chapter begins with the background to the problem, problem statement, purpose, and hypotheses, followed by a theoretical framework, definition of terms, significance of the study, assumptions and limitations, and organization of the study.

### **Background of the Study**

The effectiveness of mentoring relationships as related to various demographic and psychological factors remains one of the most captivating areas of mentoring research and practice. An increase of interest in mentoring has been fueled by publications in *Harvard Business Review* that highlighted the role of mentoring for career advancement (Collins & Scott, 1978), and the popularity of mentoring (Roche, 1979). Mentoring is defined as a dyadic relationship where psychosocial support (role modeling, acceptance and confirmation, counseling, and friendship) and career support (sponsorship, coaching, protection, providing exposure, visibility, and challenging assignments) are the functions provided by the mentor to the protégé. The mentor receives career and personal benefit from the experience as well (Kram, 1996). Therefore, mentoring relationships are essentially developmental in nature and involve close interpersonal relationships. To explore the competencies required to establish and nurture such close relationships, a look at mentoring through the lens of attachment theory may be relevant (Scandura & Pellegrini, 2004). Because one's attachment style defines one's ability to form and manage close relationships (Hazan & Shaver, 1987, 1990, 1994), attachment

theory contributes to the understanding of socio-emotional functioning (Reio, Marcus, & Sanders-Reio, 2009). Therefore, it seems logical to explore human behavior applied in the specific context of workplace mentoring.

Mentoring in the workplace is recognized as a powerful human resource development (HRD) tool that assists in career advancement, provides on-the-job training, and nurtures learning organizations (Hegstad & Wentling, 2004). Formal mentoring programs match individuals as part of an organized, facilitated employee development program (Wanberg, Kammeyer-Mueller, & Marchese, 2006), while mentors and protégés seek out each other spontaneously in informal mentoring (Ragins & Cotton, 1999). Both formal and informal mentoring relationships have been examined through various demographic lens such as gender (Kram & Bragar, 1992; Noe, 1988b; Ragins, 1989, 1999; Ragins & Cotton, 1999; Ragins & Scandura, 1997), culture (Galbraith & Cohen, 1995; Johnson-Bailey & Cervero, 2002), and age (Burke, McKeen, & McKenna, 1993; Hunt & Michael, 1983; Kram, 1980; Noe, 1988; Ragins & McFarlin, 1990) among others. Although informal mentoring has generated considerable scholarly attention (Allen, Day, & Lentz, 2005; Blake-Beard, 2001; Ragins & Cotton, 1999), the focus of this study was formal mentoring because many private and public organizations spend considerable resources on formal mentoring programs based on the assumption that such programs will be advantageous holistically to the organization, which will outweigh the benefits of the informal mentoring that occurs naturally in all organizations to some extent (Orpen, 1997). Moreover, because formal mentoring programs are planned, structured, and coordinated interventions within an organization's human resource policies, it makes sense for program planners and implementers to clarify goals of the

program to key parties, match mentors and protégés well, provide evidence of organizational support and commitment, and minimize potential problems (Ehrich, Hansford, & Tennent, 2004).

In the late 1990s, the percentage of formal mentoring programs in the corporate workplace doubled (Jossi, 1997) because organizations wanted to reap the benefits of positive mentoring outcomes for protégés such as personal development (Fagenson, 1989; Kammeyer-Mueller & Marchese, 2006; Larose, Tarabulsky & Cyrenne, 2005; Wanberg, Kammeyer-Mueller & Marchese, 2006), career and job satisfaction, job commitment, enhanced job performance, and career progress (Bahniuk, Dobos, & Hill, 1990; Laband & Lentz, 1995; Walsh & Borkowski, 1999). Organizations also identified and recognized favorable outcomes for mentors such as leadership, generativity (Barnett, 1984), and a sense of worth and self-esteem (Dalton, 1989, Dalton & Thompson, 1986). Seventy one percent of Fortune 500 companies use formal mentoring and out of the top 25 companies in Fortune's 100 Best Companies to Work For in America, 76% offer formal mentoring programs (Gray, 2005).

This study specifically focused on formal mentoring programs designed for university faculty, because, in comparison to corporate entities, relatively few universities have formal mentoring programs for faculty (De Janasz & Sullivan, 2004). Newly hired faculty members are mandated to fulfill the tripartite mission of teaching, scholarship, and service (Zeind, Zdanowicz, MacDonald, Parkhurst, King, & Wizwer, 2005) that sometimes causes them to be less satisfied with their jobs, produce less research, experience high stress, and drive them to quit, the costs of which are borne at the institutional as well at the individual level. With the cost of hiring new faculty varying

from \$2,181 (EMA/SHRM/Staffing.org, 2001) to \$1 million per individual (Brand, 2000) depending on rank, field and university, such costs can hardly be afforded with tightening budgets (Olsen, 1993). A supportive setting is crucial to long-term success in academia (Hodges & Poteet, 1992). With a paucity of empirical studies on the topic (Cunningham, 1999), there is a definite need for more extensive, exhaustive, and systematic examination of faculty mentoring programs because they offer universities means of assisting junior faculty to become more productive, comfortable, and connected to their institutions (Pololi, Knight, Dennis, & Frankel, 2002).

As much as the benefits of mentoring relationships have been documented, researchers and practitioners cannot ignore the notion that at the same time, dysfunctional mentoring relationships can result in negative outcomes such as harassment, deception, and sabotage (Allen, Poteet, & Burroughs, 1997; Eby, McManus, Simon, & Russell, 2000; Scandura, 1998; Zey, 1984). It is important for program planners of formal faculty mentoring programs to ascertain why certain mentoring relationships produce favorable outcomes and why certain individuals are predisposed to mentoring. Formal mentoring programs usually match mentors and protégés based on commonality of backgrounds and interests, developmental needs and expertise, and job level (Egan, 2005). At the same time, dysfunctional mentoring relationships are often attributed to unsuccessful matching of mentors and protégés (Ehrich, Hansford, & Tennent, 2004). Therefore, it is imperative to understand what else besides these commonly used criteria may have an impact on formal faculty mentoring relationships, thereby making the matching process better informed.

Because the characteristics of two people in a relationship influence the extent and quality of their interactions between each other (Hinde, 1997; Neyer, 2004), mentors' and protégés' individual differences are key factors that warrant investigation (Armstrong, Allinson, & Hayes, 2002; Knox & McGovern, 1988; Noe, 2002; Redmond, 1990b). Studies that have examined relationships between mentoring and individual differences such as cognitive styles, personality, locus of control, learning goal orientation, and mentoring (Armstrong, Allinson, & Hayes, 2002; Ellinger, 2002; Godshalk, & Sosik, 2003; Judge & Kammeyer-Mueller, 2007; Kim & Kim, 2007; Siegel, Smith, & Mosca, 2001) definitely suggest that interpersonal interactions and relationship between the participants are critical to mentoring. Particularly, studies that identified correlations between mentor personality and functions of mentoring and outcomes of mentoring (Chang, 1981; Theophilides & Terenzini, 1981; Wilson, Woods, & Gaff, 1974) and protégé personality and functions of mentoring and outcomes of mentoring (Aryee, Lo, & Kang, 1999; Turban & Dougherty, 1994) are important in the context of this study because mentoring is a relationship or interpersonal process where personalities play a part. However, it is not clear how the individual's basic orientation towards developing relationships as defined by attachment styles plays a role in the emergence of close interpersonal relationships like mentoring. Attachment styles are individual differences in adult attachment behavior that have their foundations in attachment experiences and are embodied in internal working models (Crowell, Fraley, and Shaver, 1999). Internal working models of attachment are regarded as primary features of personality functioning all through life. An important feature of secure



attachment and effective personality functioning is the capacity of an individual to form care-giving and care-seeking relationships (Bowlby, 1988), of which mentoring is one.

This study examined the possible role of attachment styles in the giving and receiving of the two broad mentoring functions - career support and psychosocial support, and its relation to job satisfaction, organizational commitment, and intent to turnover as important mentoring outcomes. The reason for choosing the variables of job satisfaction, and organizational commitment for this study was because these variables are positively associated with faculty mentoring (Bland, Center, Finstad, Risbey, & Staples, 2005; Steiner, Curtis, Lanphear, Vu, & Main, 2004) and negatively associated with intent to turnover (Lu, Lin, Wu, Hsieh, & Chang, 2002; Stallworth, 2003). These variables are important to this study because universities incur costs associated with faculty turnover and recruitment of new hires.

### **Problem Statement**

Mentoring theory has yet to fully explain the underlying cognitive, affective, and behavioral processes through which mentoring relationships develop (Ragins & Verbos, 2007). With dysfunctional mentoring relationships found to be related to personality characteristics (Hunt & Michael, 1983; Wright & Wright, 1987), and personal incompatibility (Ehrich, Hansford, & Tennent, 2004), extensive research on individual differences in psychological factors (Blake-Beard, 2001) is necessary for successful mentor-protégé matching (Armstrong, Allinson, & Hayes, 2002). Mentors are intimate, loyal colleagues, and guides to their protégés. The mentor- protégé relationship is a deep and

caring one that develops over time and becomes something of great value to both the mentor and protégé (Torrance, 1984).

A promising new way to study the development of mentoring relationships is through the lens of attachment theory that concerns itself with an individual difference called attachment style. Attachment broadly defines close relationships, in that one's attachment style reveals the individual's way of managing intimate relationships with friends and significant others (Hazan & Shaver, 1987). The role of specific adult developmental outcomes such as trust, and openness to feedback as mediators in mentoring relationships may be investigated in light of research tying attachment styles to empathy, trust, exploratory tendencies, self-disclosure, openness to feedback, and conflict resolution skills (Corcoran & Mallinckrodt, 2000; Eberly & Montemayer, 1999; Mikulincer & Shaver, 2001; Neuson, 1998). Attachment theory researchers have paid little attention, however, to mentoring relationships, despite some similarities in functions between mentoring and attachment relationships (Scandura & Pellegrini, 2004).

Mentoring involves interactions with a more experienced person who serves as a facilitator of the protégé's exploration of his or her social and work environment and as a source of support to cope with the stress of adjusting to a new situation (Noe, 2002). Just as new recruits in any profession face substantial rates of dissatisfaction and higher rates of turnover (Dunnette, Awy, & Banas, 1973), junior faculty identify social and intellectual isolation as problems and emphasize the benefits of working with senior faculty in formal mentoring programs (Sorcinelli, 1994). Faculty mentors are professionally stimulated to help their protégés learn the ropes, understand organizational culture, and participate in research, teaching, and service (Bland, Center, Finstad, Risbey, & Staples, 2005; Luna &

Cullen, 1995; Steiner, Curtis, Lanphear, Vu, & Main, 2004). Academic organizations could save costs of frequent faculty turnover, and increase faculty organizational commitment and job satisfaction by modeling their mentoring programs after those in the corporate sector (e.g., Geiger-DuMond & Boyle, 1995; Lindenberger & Zachary, 1999) that have been shown to develop and retain intellectual capital and reduce the cost of employee turnover (Allen, Eby, & Lentz, 2006).

Nevertheless, the creation and successful implementation of these programs is always challenging (Douglas, 1997; Kram & Bragar, 1992; Ragins & Scandura, 1997; Scandura, 1998); particularly as it relates to the appropriate matching of mentors and protégés (Feldman, 1999; Johnson & Huwe, 2002). For mentoring to be most effective, mentors and protégés should share not only work interests but like and trust each other as well (Levinson, 1978). Of course, academic departments cannot dictate faculty to trust and like each other. Thus, sometimes they fail in their efforts by trying to control the personal chemistry that is so vital to developing rewarding mentoring relationships (Feldman, 1999). Research on faculty diversity in terms of demographics such as gender, age, and ethnicity is essentially the only information available to planners of formal faculty mentoring programs.

Because mentoring relationships are developmental in nature and involve emotional bonding and close interpersonal relations, it is not surprising that the few studies that have been done in this area have found attachment styles to be related to mentoring functions and mentoring outcomes (Bernier, Larouse, & Soucy, 2005; Larose & Bernier, 2001; Larose, Bernier, & Soucy, 2004). However, the only population that has been studied in this context is undergraduate students and their faculty mentors. There is lack of research

investigating the relationship between attachment styles and mentoring functions and outcomes among other populations in higher education; specifically, between junior faculty protégés and senior faculty mentors. Currently, only an untested model proposed by Scandura and Pellingrini (2004) exists that relates attachment styles of mentors and protégés with career support and psychosocial support.

Therefore, if there is a lack of understanding of the relationship between attachment styles, the mentoring functions of career support and psychosocial support, and mentoring outcomes such as job satisfaction organizational commitment, and intent to turnover, then it possibly impacts matching processes in formal faculty mentoring programs that could result in less effective mentoring relationships.

### **Purpose of the Study**

The purpose of this study was to examine the relationship among attachment styles, mentoring (degree of career and psychosocial support), job satisfaction, organizational commitment, and intent to turnover in formal faculty mentoring programs.

### **Hypotheses**

**Hypothesis 1.** Mentor attachment styles are related to their job satisfaction, organizational commitment, and intent to turnover.

**Hypothesis 2.** Protégé attachment styles are related to their job satisfaction, organizational commitment, and intent to turnover.

**Hypothesis 3.** Mentoring (i.e., degree of career and psychosocial support from mentor) is related to protégé job satisfaction, organizational commitment, and intent to turnover.

**Hypothesis 4.** After controlling for gender, and ethnicity, mentor attachment styles and mentoring (i.e., degree of career and psychosocial support provided to protégé) significantly predict job satisfaction, organizational commitment, and intent to turnover.

**Hypothesis 5.** After controlling for gender, and ethnicity, protégé attachment styles and mentoring (i.e., degree of career and psychosocial support from mentor) significantly predict job satisfaction, organizational commitment, and intent to turnover.

### **Significance of the Study**

Attachment theory and research originally pertained to infants and young children. In the 1980s, the theory was extended to adults. In the last decade, the theory has been applied to adults in the workplace. With a growing literature investigating attachment styles as it relates to job satisfaction (Hazan & Shaver, 1990), career development (Blustein, Prezioso, & Schultheiss, 1995), transformational leadership (Popper, Mayseless, & Castelnovo, 2000), and work versus family concerns (Summer & Knight, 2001), there seems to be a clear need in the field of HRD to explore the link between attachment styles and mentoring relationships. This study adds to the HRD literature base that has extended attachment theory to adults in the workplace.

Specifically, this is a unique study that extends attachment theory to workplace mentoring in the higher education setting. The study holds the promise of enlightening the field of formal faculty mentoring research to clarify faculty empowerment, productivity, and retention efforts. Understanding the relationship of attachment styles of

mentors and protégés to the mentoring functions and outcomes will help make formal faculty mentoring programs better by impacting mentor-protégé matching. Higher education institutions that plan and implement formal mentoring programs for their junior faculty may go beyond selecting mentors based on professional characteristics like experience and position held. Mentoring program planners could select mentors with secure attachment styles, and assist potential mentors with insecure attachment styles with appropriate interventions. Further, they can strengthen mentoring experiences by intentionally developing social competencies. Emotional support skills and conflict management skills would benefit the potential mentor while self-disclosure skills would benefit the potential protégé. They could also provide protégés who are not inclined to benefit from mentoring relationships with alternative developmental activities.

Increasingly, adult educators are expressing interest in mentoring. Adult education literature discusses it as primarily a positive adult learner/adult teacher connection. This is evident in its discussion of the structural and personal relationships and of the multiple outcomes associated with the process (Stalker, 1994). This study enriches the adult education literature by extending attachment theory to understand an intense emotional personal relationship like mentoring. This study also has future research implications for mentor-protégé dynamics among different demographic pairs and elucidates how attachment styles play a role in mentoring relationships involving diverse demographic pairs.

### **Theoretical Framework**

Attachment is a behavioral system and is evident across cultural, genetic, and other individual differences (Ainsworth, 1989). Attachment theory proposes that early

caregiver-child relationships progressively result in development of working models or mental representations of the self and others, which in turn, guide how people regulate emotions, and process information in close relationships. The theory is concerned with the nature of close emotional bonds or attachments and how these unique intimate relationships affect the course of life (Bernier, Larouse, & Soucy, 2005).

Attachment styles reflect peoples' self-images of competence and lovability, and their general expectations about the credibility and dependability of others to provide support in critical times. Individuals develop certain attachment patterns or styles, the formations of which are immensely influenced by how the individual is treated by the primary attachment figure in early life. Bartholemew and Horowitz (1991) described four prototypic forms of adult attachment styles: Secure, Preoccupied, Dismissing, and Fearful. Out of the four attachment styles, secure adults have a sense of worthiness plus an expectation that other people are generally accepting and responsive to their support seeking endeavors. Preoccupied adults have low self-esteem and high regard for others, dismissing adults have high self-esteem and low regard for others, and fearful adults have low self-esteem and low regard for others. The capacity of an individual to form intimate emotional relationships with others whether as care-giver or care-seeker, is regarded as an important feature of effective personality functioning. Insecure attachment states of mind have a negative impact on the development of relationships (Bowlby, 1988). Once formed, both secure and insecure attachment would be relatively stable and persistent (Bowlby, 1988).

Current theory and research on adult attachment draw heavily on Bowlby's (1988) concept of attachment representations or working models. These models guide behaviors and influence expectations and strategies in adult relationships (Bretherton,

1985; Sroufe, 1986). Crowell, Fraley, and Shaver (1999) identified two central aspects of attachment theory that are keys to understanding attachment in adulthood: (a) the attachment system is active in adults, and (b) there are individual differences in adult attachment behavior that have their foundations in attachment experiences and are embodied in the working models.

Although longitudinal studies of attachment verify that attachment relationships from early life carry over to adulthood (Cloninger, 2004; Hamilton, 2000; Waters, Merrick, Treboux, Crowell, & Albersheim, 2000), investigators on recent investigations found relationship between adult attachment styles and their social and emotional adaptation. Ryan and Deci (2000) suggested that attachments to others facilitated autonomy. Individuals with secure attachment styles know that acknowledgement of stress elicits supportive responses from others and turning to them is an effective route to enhanced coping. With confidence that needed support is available, secure individuals can engage in autonomy-producing activities (Mikulincer, Shaver, & Pereg, 2003).

Attachment theory could be a useful framework to investigate mentoring functions and outcomes because mentoring usually occurs when the protégé is in a new environment, faces risks and challenges similar to infant development, and needs the mentor for support (Bernier, Larouse, & Soucy, 2005; Chandler & Kram, 2007; Noe, 2002). One of the main characteristics of progress in career decision making is readiness to explore the environment autonomously. An individual's attachment figure serves as a secure base from which the individual feels confident to be curious and to explore an unfamiliar environment, while remaining cognizant that the attachment figure is accessible (Ainsworth, 1989). The presence of this control system or secure base and its



connections with internal working models (environmental homeostasis) are regarded as primary features of personality functioning all through life (Bowlby, 1988). Personality is related to a person's behavior in mentoring relationships in terms of open communication, extraversion, agreeableness, flexibility (Engstrom, 2004; Theophilides & Terenzini, 1981; Turban & Dougherty, 1994), accessibility and availability (Wilson, Woods, & Gaff, 1974), and empathy and respect (Chang, 1981). The obvious overarching linkage between attachment styles and personality functioning in terms of well-being, trust, sociability, endurance, anxiety, and satisfaction with social support (Bowlby, 1988; Caldwell, 1994), therefore, makes it natural that early life social experiences could play a significant role in adult mentoring relationships (Scandura & Pellegrini, 2004). Given attachment theorists' strong emphasis on the inhibition of exploration and growth-oriented behaviors caused by insecure attachment, it is quite natural that individuals with secure attachment styles are more likely to embrace opportunities to receive mentoring than those with other styles (Chandler & Kram, 2005).

### **Definition of Terms**

*Attachment styles* are internal working models or mental representations of the self and others, which guide perception, emotion regulation and information processing in close relationships (Bowlby, 1988).

*Generativity* is the contribution to future generations that gives a sense of immortality (Erikson 1963).

*Individual differences* refer to aspects of people's individualities such as intelligence, cognitive styles, and personalities that may impact behavior (Jonassen & Grabowski, 1993).

*Mentoring* is a dyadic relationship where individuals with advanced experience and knowledge called mentors are committed to providing upward mobility and support to junior and less experienced individuals called protégés (Ragins & Scandura, 1999).

*Mentoring functions* are provided by the mentor such as (a) psychosocial support in the form of role modeling, acceptance and confirmation, counseling, and friendship, and (b) career support in the form of sponsorship, coaching, protection, providing exposure, visibility, and challenging assignments (Kram, 1996).

*Mentoring outcomes* for protégés include personal development (Cosgrove, 1986; Kram, 1985; Torrance, 1984), career and job satisfaction, job commitment, enhanced job performance, and career progress (Bahniuk, Dobos, & Hill, 1990; Laband & Lentz, 1995; Walsh & Borkowski, 1999). Outcomes for mentors include leadership, generativity (Barnett, 1984), sense of worth, and self-esteem (Dalton, 1989; Dalton & Thompson, 1986).

*Job satisfaction* is employees' feelings and attitudes about the job (Herzberg, 1968).

*Organizational commitment* involves an employee's loyalty to the organization, willingness to exert effort on the behalf of the organization, degree of goal and value congruency with the organization, and desire to maintain membership (Bateman & Strasser, 1984).

*Secure base* phenomenon is the purposeful balance between proximity-seeking and exploration at different times and across contexts (Bowlby, 1988).

*Self-esteem* reflects the extent to which an individual believes him/herself to be capable, significant and worthy (Coopersmith, 1967).

## **Assumptions and Delimitations of the Study**

There are several assumptions and delimitations to this study.

### **Assumptions**

The study's assumptions include: (a) the research instruments have good reliability estimates, are valid measures of the variables as intended in the hypotheses, and are appropriate for the purpose of the study; (b) participants understand and complete the instruments correctly, honestly, and individually; (c) participants' statements and responses to questionnaires about mentoring functions received by them or provided by them and the outcomes of their mentoring experiences are not influenced by external factors.

### **Delimitations**

The scope of this study is only delimited to a formal faculty mentoring program in one university, and this may limit generalization of the results to the population of faculty in other universities. This study would have to be replicated in other universities' formal faculty mentoring programs and similar results would have to be obtained before further conclusions could be made about extending results to other populations.

## **Organization of the Study**

This chapter introduced the study including the background to the problem, the problem statement, the purpose statement, and the theoretical framework. The significance of the study, assumptions, delimitations to this study, and the definitions of terms were also discussed. Chapter 2 provides a review of the literature supporting the study. Discussed in Chapter 3 are the research method (research design, population and sample, procedures for data collection, research instruments, and data analysis

procedures). Chapter 4 presents the findings of the study, and Chapter 5 concludes with a discussion of the findings, implications and recommendations for research and practice, and summary.

## **CHAPTER II**

### **REVIEW OF THE LITERATURE**

This chapter presents the empirical and theoretical literature on mentoring and attachment. Four broad sections are used as an organizing framework of the literature review. The first section is devoted to mentoring. Mentoring programs are recognized in the HRD literature as a tool for providing protégés and mentors with career and psychosocial supportive functions. Among the many outcomes that the mentoring literature is concerned with, this study focuses on job satisfaction, organizational commitment, and intent to turnover as the dependent variables. Because demographic variables influenced mentoring outcomes such as job satisfaction, organizational commitment, and intent to turnover, and this study will use demographic variables as statistical controls, the review looks at the career and psychosocial functions of mentoring in the backdrop of demographic factors and integrates those studies that are concerned with job satisfaction, organizational commitment, and intent to turnover. The next section presents an overview of attachment theory. In addition, because this study is about mentoring relationships in a work setting that typically occur between adults, associations in the literature between attachment, adult developmental outcomes, work behaviors and career development are reviewed in this section. The third section presents and discusses concepts and findings from the literature linking attachment with mentoring. The final section is a summary of the literature review on attachment, mentoring, job satisfaction, organizational commitment, and intent to turnover.

## **Mentoring**

Not the least shyness, now, Telemachus. You came across the open sea for this – to find out where the great earth hides your father and what the doom was that he came upon. Reason and heart will give you words Telemachus. I should say the gods were never indifferent to your life. (Homer, n.d.)

The word “mentor” originated in the Greek legend where Mentor (goddess Athene in disguise) was the wise counselor to whom Odysseus entrusted the education of his son, Telemachus. The archetype mentor represents “knowledge, reflection, insight, wisdom, cleverness, and intuition.” The figure appears in a situation where “insight, understanding, good advice, determination, planning etc. are needed but cannot be mustered on one’s own,” often arriving in the right time to help the protégé along (Jung, 1958, p.71).

Mentoring is traditionally defined as developmental support offered to a junior employee (protégé) by a mentor who is typically someone more senior and experienced in the organization (Kram, 1983, 1985). The definition of mentoring has evolved considerably from the face-to-face, traditional, dyadic, hierarchical relationship to other formats (Scandura & Pellegrini, 2007) such as e-mentoring sustained through the electronic medium (Hamilton & Scandura, 2003), team and peer mentoring, where the team leader mentors members and team members mentor each other (Williams, 2000) and bidirectional mentoring, where the interaction is two-way, mutual, and reciprocal whereby the mentor and protégé both benefit (D’Abate, Eddy, & Tannenbaum, 2003). A mentoring relationship typically goes through four phases - (a) initiation, when the mentor and protégé establish the relationship; (b) cultivation, when career and

psychosocial functions are at their peak; (c) separation, when substantial changes occur within the organization, and/or psychological transformations occur within one or both individuals; and (d) redefinition, when the mentor and protégé embark on a new form of relationship, or the relationship terminates entirely (Kram, 1983). The duration of the initiation phase is generally 6 to 12 months; the cultivation phase 2 to 5 years, the separation phase 6 months to 2 years after a significant change in the structural role relationship, and the redefinition phase could last for an indefinite period after the separation phase.

There are two major forms of mentoring – formal and informal, both of which are beneficial to the mentor and the protégé (Packard, Walsh, & Seidenberg, 2004; Ragins & Cotton, 1999; Sosik & Godshalk, 2000), and the intent of both are career and psychosocial development (Kram, 1983, 1985). Formal mentoring programs match individuals as part of an organized, facilitated employee development program (Eby & Lockwood, 2005; Wanberg, Kammeyer-Mueller, & Marchese, 2006), while mentors and protégés seek out each other spontaneously in informal mentoring (Chao, Walz, & Gardner, 1992; Ragins & Cotton, 1999). About one third of large companies in the United States are estimated to have formal mentoring programs (Hezlett & Gibson, 2005). Formal mentoring programs are widely used by organizations for employee career development and retention. New recruits to any profession may face substantial rates of dissatisfaction and higher rates of turnover (Dunnette, Arvey, & Banas, 1973). Losing an employee entails costs in recruitment, selection, training, and about 60% loss in productivity (Tracey & Hinkin, 2008). Mentoring programs develop and retain intellectual capital and reduce the cost of employee turnover, and so public organizations

like the US Department of Agriculture, and the Internal Revenue Service, as well as many private ones such as Coca-Cola, Federal Express, Bank of America, Marriott International, and Charles Schwab have mentoring programs in order to attract, retain, and develop employees (Allen, Eby, & Lentz, 2006; Hegstad, 1999). HRD professionals are involved in the design, implementation, and facilitation of both forms of mentoring in organizations (Bierema & Hill, 2005; Hezlett & Gibson, 2005).

The present study is focused on formal mentoring involving faculty in higher education because in spite of its popularity, not much is known about formal mentoring programs (Raabe & Beehr, 2003; Ragins, Cotton, & Miller, 2000; Scandura, 1998). Moreover, compared to the corporate world, fewer institutions of higher education have formal mentoring programs for faculty development. Only about a quarter of U.S. universities have formal faculty mentoring programs, while most new faculty are expected to seek out mentors informally (Brent & Felder, 2000). This may not always work out because the time spent by new faculty to come across the right mentor may add to their already high stress levels of meeting the demands of the new job and learning the ropes of the organization. New faculty typically do not have enough time, receive inadequate feedback and recognition, often set unrealistic self-expectations, experience lack of collegiality, and find hard to strike a work-life balance. All these factors sometimes lead to low scholarly productivity, and ineffective teaching (Sorcinelli, 1994) that may cause burnout and turnover. Additionally, women faculty or faculty who come from underrepresented groups has difficulty finding mentors informally because of the general unavailability of mentors from those groups. A mentor can help a new faculty member assimilate into academe, offer assistance on initiation in research and teaching



activities, and serve as a supporter in the tenure and promotion process (Brent & Felder, 2000; Paul, Stein, Ottenbacher, & Liu, 2002). In order for new faculty to become productive in the academic community within their first couple of years, academic departments should be proactive in helping them through formal faculty mentoring programs rather than allowing their development to proceed entirely by trial and error (Boice, 1992). University of Vermont, Marquette University, University of California, Northern Illinois University, New York University, University of Kansas, are some of the universities that have implemented formal faculty mentoring programs. Mentoring has shown to have positive outcomes for junior faculty in formal mentoring programs by facilitating organizational socialization, and research productivity (Cawyer, Simonds, & Davis, 2002; Paul, Stein, Ottenbacher, & Liu, 2002). A review of 39 studies of mentoring in academic medicine revealed mentorship having an important influence on research productivity, personal development, career guidance, and career choice of junior faculty (Sambunjak, Straus, & Marusic, 2006).

Majority of the research on mentoring over the last two decades has involved itself with theory development, benefits of mentoring from both the mentors' and the protégés perspectives, barriers to the establishment of mentoring relationships, and various kinds of socio-cultural and individual differences of mentors and protégés (Noe, Greenberger, & Wang, 2002). Following the seminal works of Levinson, Darrow, Klein, Levinson, and McKee (1978), and Kram (1983, 1985), organizations became aware of the positive outcomes of effective mentoring relationships. Both formally designed mentoring programs and informal mentoring relationships are known to produce favorable outcomes such as protégé career development and personal development

(Barnett, 1984; Cosgrove, 1986; Dalton, 1989; Dalton & Thompson, 1986; Kram, 1985; Torrance, 1984). Positive outcomes for mentors include personal development such as leadership, generativity, increased visibility, sense of worth, and self-esteem (Barnett, 1984; Dalton, 1989, Dalton & Thompson, 1986; Walker, Kelly, & Hume, 2002). Career development and personal development of mentors and protégés lead to favorable outcomes such as job satisfaction and organizational commitment (Aremu & Adeyoku, 2003; Ragins & Cotton, 1999; Stallworth, 2003) that in turn increase the possibilities of employee retention and reduce intent to turnover (Bahniuk, Dobos, & Hill, 1990; Laband & Lentz, 1995; Walsh & Borkowski, 1999; Wilson & Elman, 1990).

Chao, Walz, and Gardner (2006) while comparing formal and informal mentoring relationships, found that protégés in informal mentorships reported more career-related support from their mentors and higher salaries than protégés in formal mentorships. No difference in psychosocial support was found between protégés who were formally mentored versus those who were informally mentored. There were also no significant differences on organizational socialization and job satisfaction between protégés in formal mentoring relationships compared to those in informal mentoring relationships. Frierson, Hargrove, and Lewis (1994), and Morton and Gordon (1992) suggested that one way to increase the likelihood of formal mentoring programs providing comparable benefits to informal mentoring programs is to match mentors and protégés carefully.

Discussion regarding potential problems that can arise in mentoring relationships (Eby & McManus, 2004; Feldman, 1999; Scandura, 1998; Scandura & Pellengrini, 2007; Williams, Scandura & Hamilton, 2001) has surfaced in mentoring research only in the latter years, bringing our attention to the fact that researchers should examine both

positive and negative aspects of mentoring to understand the entirety of the relational experience. In an empirical study involving 429 participants, Eby, McManus, Simon, and Russell (2000) developed a taxonomy regarding negative mentoring experiences. The suggested causes were: (a) mismatch within the dyad (values, work-style, personality); (b) distancing behavior (neglect, self-absorption, intentional exclusion); (c) manipulative behavior (position power, tyranny, inappropriate delegation); (d) politicking (sabotage, credit-taking, deception); (e) lack of mentor expertise (interpersonal competency, technical incompetency); and (f) general dysfunctionality (bad attitude, personal problems). Several factors could play a role in the success of the mentoring relationship and should be considered in the matching process. Protégés have been paired with mentors in many ways such as similarity in interests, backgrounds, and geographic proximity (Furano, Roaf, Styles, & Branch, 1993; Garcia, 1992). In order to find out why certain mentoring relationships are rich in the functions they provide and the outcomes they produce, and why certain individuals are naturally inclined to these relationships, mentoring researchers examined mentor-protégé dynamics through the lens of gender (Kram & Bragar, 1992; Noe, 1988b; Ragins, 1989, 1999; Ragins & Cotton, 1999; Ragins & Scandura, 1997), ethnicity (Ragins, 1997; Ragins & McFarlin, 1990; Thomas, Willis, & Davis, 2007), culture (Galbraith & Cohen, 1995; Johnson-Bailey & Cervero, 2002), and personality variables (Aryee, Lo, & Kang, 1999; Bono & Colbert, 2005; Judge & Kammeyer-Mueller, 2007; Kim & Kim, 2007; Turban & Dougherty, 1994).

Theoretical and empirical research clarifies that career and psychosocial functions serve as the primary distinct and reliable overarching operationalizations of mentoring

provided (Allen, Eby, Poteet, Lentz, & Lima, 2004). Mentoring research related to gender, ethnicity, culture, and personality of mentors and protégés is therefore discussed in this review in terms of career and psychosocial support (mentoring functions). The outcomes of mentoring found in the literature can be categorized into two broad categories – objective and subjective (Allen, Eby, Poteet, Lentz, & Lima, 2004). Examples of objective career outcomes are promotion and compensation (Dreher & Ash, 1990). Subjective career outcomes include more affective measures of career success such as job satisfaction, organizational commitment, and turnover intentions (Koberg, Boss, & Goodman, 1998; Noe, 1988a). Locke (1976) defined job satisfaction as “...a pleasurable or positive emotional state resulting from the appraisal of one's job and job experiences” (p. 1307). Meyer and Allen (1991) defined organizational commitment as, “...the view that commitment is a psychological state that (a) characterizes the employee's relationship with the organization and (b) has implications for the decision to continue membership in the organization” (p. 67). Several researchers provided evidence to support the idea that the higher the level of job satisfaction (as a result of being mentored), the more likely that the person would be committed to the organization and have lower levels of intent to quit (Aremu & Adeyoju, 2003; Baugh & Scandura, 1999; Donovan, Brown, & Mowen, 2004; Hezlett & Gibson, 2005; Joiner, Bartram, & Garreffa, 2004). Because career success is often discussed in terms of both concrete, extrinsic outcomes and more subjective outcomes (Greenhaus, Parasuraman, & Wormley, 1990; Turban & Dougherty, 1994), mentoring researchers naturally considered investigating both subjective and objective indicators of career success important. So the review of

mentoring research related to gender, ethnicity, culture, and personality of mentors and protégés includes both objective and subjective mentoring outcomes.

### **Gender and Mentoring**

Women comprised 46% of the total U.S. labor force and were projected to account for 47% of the labor force in 2016 (U.S. Bureau of Labor Statistics, 2006). Despite the large proportion, women's careers lag behind those of their male counterparts. This lag was often attributed to the glass ceiling and mentoring was suggested as a tool to assist women in breaking through the barrier (Blake-Beard, 2001; Ellinger, 2002). The "glass ceiling" is defined as "those artificial barriers based on attitudinal or organizational biases that prevent qualified individuals from advancing upward in their organization into management level positions" (U.S. Department of Labor, 1991, p. 1).

Cross-gender mentoring issues appeared to naturally differ on the basis of the occupation type, for example, it was less of a concern for mentors and protégés in the health care industry partly because of previous relationships developed in an earlier phase of career development such as during a residency or an internship (Walsh & Borkowski, 1999). However, occupations that were heavily dominated by women, for example, finance, insurance, retail, K-12 education etc. and those heavily dominated by men, for example, industrial, and service industries (Glass Ceiling Commission, 1995), apparently reported more issues with cross-gender mentoring. Because of the lack of female mentors, especially in traditionally male-dominated occupations, the majority of available mentors were male managers and this set the stage for cross-gender mentoring

relationships (Noe, 1988b). With men more likely to act as mentors for both men and women (Darwin, 2004), cross-gender mentoring relationships are fairly common.

Cross-gender mentoring relationships were reported as fraught with challenges. Women were reported to face more barriers in the initiation phase of the mentoring relationship than men due to interpersonal and organizational barriers (Hunt & Michael, 1983; Kram, 1985; Noe, 1988b; Ragins & Cotton, 1991). Women protégés most often needed to handle sexual rumors and innuendo that arose from cross-gender mentoring relationships and failure to do so could have ramifications ranging from gossip to career-ending decisions (Blake-Beard, 2001). Quite naturally, better chances to develop relationships occurred between female protégés and female mentors because they were significantly more likely than female protégés and male mentors to engage in after-work, social activities (Ragins & Cotton, 1999). In certain organizational cultures, women might face barriers in establishing mentoring relationships because they were considered to have low status and were often marginalized and/or excluded from important matters concerning the organizations (Hansman, 2002). Such organizations were known to have masculine cultures – cultures that valued men more than women (Mann, 1995). Interestingly, women who thought that their organization's cultures were highly masculine exhibited more mentoring behaviors perhaps because women felt more obligated to provide career mentoring to other colleagues in a male-dominated culture (Jandeska & Kraimer, 2005). Additionally, in a study involving university faculty, women reported being in more mentoring relationships than did men (Smith, Smith, & Markham, 2000). In contrast, another study of mentoring relationships in higher education found that women mentors experienced difficulties in mentoring male protégés

especially for those protégés who lacked confidence in women mentors' competencies or credibility (Thomas, Willis, & Davis, 2007). These findings are similar to another study (Ragins & Cotton, 1993), where though women expressed as much willingness to mentor as men, they anticipated significant drawbacks in becoming a mentor.

Studies did not find differences between male and female mentors as far as expectations of mentor roles, and career outcomes. Male and female mentors shared similar expectations about their roles (Walsh & Borkowski, 1999). Women were as likely as men to mentor and their expected career outcomes of mentoring were similar to men's (Ragins & Scandura, 1994). Gender differences between mentors and protégés also did not appear to reduce congruence of their perceptions regarding developmental support and frequency of communications in the relationship (Fagenson-Eland, Baugh, & Lankau, 2005). Research findings about mentoring functions and mentoring outcomes as they relate to gender are presented below.

### **Mentoring functions.**

In cross-gender mentoring, women protégés often faced discordance in the advice provided to them by their male mentors, for example, regarding the path to success or the definition of success itself (Hansman, 2002). However, no differences were found in male and female protégés' perceptions of career development support received (Ragins & McFarlin, 1990; Whiteley, Dougherty, & Dreher, 1992). The psychosocial benefits of mentoring relationships were thought to vary significantly, however, depending on the gender of the individuals involved. The shared experiences, understanding, and likelihood for deeper emotional bonds found in women mentor-protégé dyads were not found in male mentoring dyads (Mott, 2002). Women mentors and protégés gave and

received greater levels of psychosocial support through enhancing a sense of competence, and self-image by role modeling, friendship, counseling, acceptance, and confirmation (Lane, 2004). Women protégés also preferred a relational focus, and a mentor who modeled egalitarian values and contextual decision making by blending personal and professional roles (Johnson, 2002). On the other hand, men mentors and protégés received and gave each other greater levels of career development support through sponsorship, exposure, visibility, coaching, and challenging assignments (Pompper & Adams, 2006).

In a correlational study of 111 women faculty, Viers-Yaun (2003) found that women mentor-protégé pairs gave each other a greater degree of psychosocial support. The findings also indicated that having a male mentor was associated with the mentor providing career mentoring functions to a greater extent. A slight majority of women faculty (53.7%) had women mentors while the others were in cross-gender mentoring relationships.

### **Mentoring outcomes.**

Although gender differences played a role in the initiation of mentoring relationships, Fagenson (1989), and Ragins and Cotton (1991) found that once mentoring relationships were established, no significant differences in terms of protégé perceptions of mentoring outcomes were found based on gender differences. The outcomes measured in these studies were subjective outcomes such as career satisfaction, career advancement, and objective outcomes such as recognition and a higher promotion rate. Similarly, in a study of 1132 lawyers, job satisfaction as an outcome of mentoring relationships did not show any gender-based differences. Analyzed separately, both male



and female lawyers who had mentors reported higher job satisfaction than those who did not have mentors (Mobley, Jaret, Marsh, & Lim, 1994). Aremu and Adeyoju (2003) studied the effect of mentoring on job satisfaction and job commitment by gender in a sample of 592 Nigerian police officers. Z-score statistics were used to calculate the mean and the standard deviation values of mentored males and females. The findings indicated that mentored males felt more job commitment, while mentored females experienced more job satisfaction.

Gender-based earnings disparities were attributed to differential availability of mentoring (Glass Ceiling Commission, 1995). An interesting finding in this regard showed that having a history of male mentors provided positive objective outcomes for women protégés such as increased compensation (Dreher & Cox, 1996; Gonzalez-Figueroa & Young, 2005). The sample studied by Gonzalez-Figueroa and Young (2005) consisted of 103 Latina women with professional roles in the areas of business, academia, policy, and politics. Even though women protégés received greater degree of psychosocial support from their women mentors, Burke and McKeen (1996) at the same time, found that those women protégés reported greater intention to quit, earned lower salaries, and tended to be in lower level managerial positions. This finding is similar to the one in a study conducted by Pompper and Adams (2006) where men were more advantageous as mentors for women because within-gender discord among women often resulted in lack of supportiveness and personality conflicts which counteracted the positive attributes of same gender matching among women. In contrast, Dreher and Ash (1990) found that men protégés reported earning more than female protégés even though they received the same amount of mentoring.

## **Ethnicity and Mentoring**

With the advent of affirmative action programs in the 1970s, minorities in terms of racial and ethnic groups entered occupations from which they were previously excluded (Guy, 2002). With racial minorities comprising nearly one-third of the workforce, mentoring program designers and researchers focused their attention on minorities (Ellinger, 2002). Mentoring research overwhelmingly indicates that the preference for same ethnicity mentors and their non-availability is a major issue for minority protégés that sets the context for cross-ethnic mentoring where usually White mentors engage in mentoring relationships with minority protégés (Brooks & Clunis, 2007). The needs of African Americans and other racial minorities differed from those of Whites in mentoring relationships because they frequently faced issues of negative stereotypes, peer resentment, and skepticism about competence (Guy, 2002). Quite naturally, minorities preferred being mentored by individuals of their own ethnicities (Hansman, 2002). Viator (2001) examined African American protégés' abilities to obtain mentors in the public accounting profession. The participants in the study were male and female African American and White Certified Public Accountants (CPAs) and non-CPAs working in large public accounting firms. The findings indicated that compared to Whites, African-American employees found it difficult to obtain mentors and were less likely to have informal mentors.

In higher education, because minority faculty remained grossly underrepresented, minority students found it hard to obtain mentors of their own ethnicity (Johnson, 2002). A study of African American women on two university campuses revealed that although they preferred African American female mentors, they were not readily available

(Hansman, 2002). Another study involving Latina professional women in the areas of business, academia, policy, and politics found that if given a choice, Latina women protégés would prefer to be mentored by someone of similar ethnicity (Gonzalez-Figueroa & Young, 2005). Similar results were reported in a study at a mid-Western university where a large proportion of White men faculty were involved in mentoring relationships whereas Asian men faculty were not, due to lack of availability, and even if they were, they reported negative experiences in their relationships (Parson, Sands, & Duane, 1992). Persistent group stereotypes relating to minority protégés' competencies, as well their unique cultural perspectives demanded that White mentors should expand their knowledge and understanding of being a minority as well as increase their own multicultural competence by experiencing diverse contexts and diversified relationships (Thomas, Willis, & Davis, 2007). Research findings about mentoring functions and mentoring outcomes as they relate to ethnicity are presented below.

### **Mentoring functions.**

The experiences of minority protégés reportedly differed as compared to White protégés. A major issue remained as the degree of support minority protégés received from their mentors (Brooks & Clunis, 2007). In a study involving 104 protégés and their staff mentors employed at a large West coast media organization, Ensher and Murphy (1997) found that mentors paired with same-race protégés liked their protégés more than mentors paired with different-race protégés  $F(1,52) = 4.25, p < .05$ . Protégés matched with same-race mentors also gained more psychosocial and career support than protégés paired with different-race mentors  $F(1,72) = 3.95, p < .05$ . In this study, most of the mentor/protégé cross-race dyads were Caucasian mentors paired with minority protégés.

White mentors might hold negative perceptions of minority protégés' competencies and therefore show reluctance in offering support to their protégés until they thought that they were worth investing time and energy (Hansman, 2003). A critical mentoring function like giving constructive and honest feedback to protégés could be an issue in cross-ethnic mentorships because individuals with power often avoided or gave false feedback to minorities with less power (Thomas, Willis, & Davis, 2007). When this occurred, the relationship lacked psychosocial support (Johnson-Bailey & Cervero, 2002). Other reports, however, indicated that non-White protégés received psychosocial support from their mentors, but lacked access to career guidance, direction, and advocacy that good mentors should also provide (Ragins, 1997; Ragins & McFarlin, 1990; Thomas, Willis, & Davis, 2007). Ragins (1997) hypothesized that relationships involving minority mentors provide fewer career development functions than relationships involving majority mentors because restricted organizational power limits minority mentors in providing career development support to their protégés. In a qualitative study by Thomas (2001) that compared career paths of White professionals and minority professionals at three major corporations, it was found that minority professionals who reached executive levels of their organizations received psychosocial support and career development support from their mentors in contrast with minority professionals who plateaued in their initial career stage that received only basic instructional mentoring. The researcher conducted in-depth case studies of 20 minority executives, predominantly African-Americans but also including Asian-Americans and Hispanic-Americans. In order to compare, he also conducted in-depth studies of 13 white executives as well as 21 non-executives (people who had plateaued in middle management), both white and minority, from the same

companies. In addition, he reviewed the promotion records of more than 500 managers and executives at one of the companies studied.

An interesting finding by Atkinson, Neville, and Casas (as cited in Johnson, 2002) in a higher education mentoring context was that 73% of minority protégés had White mentors and reported the same level of mentorship satisfaction as those protégés who had mentors of the same ethnicity. Another study involving faculty found no differences in the levels of career and psychosocial development revealed in diversified mentorships when compared to homogeneous mentoring relationships (Smith, Smith, & Markham, 2000). However, the latter study that surveyed 226 university faculty, did not consider role modeling as one of the mentoring functions provided by mentors. Role modeling was of particular importance to minority protégés because they tried to find in a mentor, an image of who they could become (Kram, 1985). However, the availability of role models was very limited as shown in a study of African American women (Hansman, 2002).

Attitudes and strategies for dealing with ethnic differences played a role in mentoring functions. Similarity in attitudes between the mentors and protégés whether they denied the differences or discussed them openly led to increased career development and psychosocial functions. Differences in attitudes led to decreased level of psychosocial support (Ragins, 1997).

### **Mentoring outcomes.**

The review found that outcomes of mentoring differed for minority protégés. In a study of 226 university faculty by Smith, Smith, and Markham (2000), higher degrees of mentoring were associated with more organizational commitment and lower intent to turnover for White protégés, while there was no significant impact of additional amounts

of mentoring on minority protégés' organizational commitment and intent to turnover. For Caucasian males, the correlation between mentoring and affective organizational commitment was  $r = .28$  ( $p < .009$ ) and between mentoring and intent to turnover  $r = -.37$  ( $p < .001$ ). Similarly, for Caucasian females, the correlation between mentoring and affective organizational commitment was  $r = .28$  ( $p < .004$ ) and between mentoring and intent to turnover  $r = -.26$  ( $p < .007$ ). The correlation between these measures for minority protégés was not significant. This could be a result of minority protégés' general feelings of mistrust about their White mentors' competencies to mentor (Hansman, 2002).

Studies examining effects of mentor sensitivity, mentor ethnicity, and protégés level of mistrust on perceptions of mentor effectiveness, reported that African-American protégés had low levels of trust about their White mentors' mentoring competencies (Carter, 2000; Grant-Thompson & Atkinson, 1997). This could be due to their Africentric perspective that emphasized interpersonal relationships and communalism, and rejected the dominant culture's perception of communalism as dependence. Africentricity was defined as viewing a phenomenon from the perspective of the African person and the African culture (Harris, 1999). Harris (1994) stated the criticality of considering this perspective in the complex process of mentoring African American protégés and proposed an Africentric mentoring model that viewed mentoring relationships as nurturing, mutually beneficial and collaborative for both mentors and protégés. On the other hand, Ragins (1997) hypothesized that the degree of diversity in the mentoring relationship will have a positive relationship with the mentor's accrual of knowledge, empathy, and skills relating to diverse groups, which in turn would positively impact

his/her job performance in heterogeneous workgroups and sense of generativity, job satisfaction, and personal fulfillment. Again, attitudes towards diversity from the mentor's perspective and the organization's perspective play a role in these mentoring outcomes (Tsui, Egan, & Xin, 1995).

### **Culture and Mentoring**

In the United States people of the same ethnicity were believed to share common cultural traits; however, over time, migration of different ethnic groups from other countries and their subsequent intermingling had created new ethnic identities (Brooks & Clunis, 2007). The word "culture" in this section is defined as "the interactive aggregate of common characteristics that influence a human group's (societies/nations) response to its environment" (Hofstede, 1980, p. 21). With organizations crossing national boundaries, workforce had become more diversified, and so cross-cultural mentorships were on the rise (Higgins & Kram, 2001). Mentoring relationships were affected by complexities related to cultural differences of its members, geographic distances between mentors and protégés as well as by the unique opportunities offered by diversity. DiStefano and Maznevski (2000) found that culturally diverse teams frequently performed dismally, and high functioning diverse teams were much rarer. Research on the complexities of cross-cultural mentoring relationships strongly suggested that if a diverse workforce was to benefit from mentoring, assistance to mentors and protégés would be necessary (Chandler & Kram, 2007).

Cultural mistrust of the protégé and cultural sensitivity of the mentor were related to protégé's perception of mentor effectiveness and mentor cross-cultural competence (Carter, 2000; Grant-Thompson & Atkinson, 1997). Cultural mistrust comprised of

feelings and beliefs of alienation towards another's culture (Terrell & Terrell, 1981). Respectfulness among participants, a demonstration of values of each individual participant, and shared recognition of professional connectedness were considered by mentors and protégés as contributing to the mentoring outcomes of personal development in terms of appreciating diversity (Roeder, 2006). In order to mentor competently to promote the protégé's career development, the mentor might need to explain certain aspects of his or her own culture to the protégé (Davidson & Foster-Johnson, 2001). Similarly, a mentor needed to spend time learning about the culture of his/her protégé, and appreciate the uniqueness of his/her protégé within the same culture (Johnson, 2002). Unique variations in communication methods that were inherent to particular cultures and countries were key points that mentors and protégés in cross-cultural mentoring relationships needed to recognize and incorporate into personal interactions. Intercultural communication involved the ability to identify barriers such as misinterpretation of nonverbal cues, and lack of language fluency that resulted from differences in modes and styles of communication (Davidson & Foster-Johnson, 2001). Research findings about mentoring functions and mentoring outcomes as they relate to culture are presented below.

### **Mentoring functions.**

In a study of 156 protégés who completed six-month internships outside their home country, Feldman, Folks, and Turnley (1999) found that protégés sharing the same nationality with mentors received more task-related, social-related, and career-related support than mentor-protégé dyads with dissimilar nationality and culture. Fifty per cent of the sample were interns in Western Europe, thirty per cent were interns in South



America or Central America, and twenty per cent were protégés of international origins who took their internships in the United States. The sample of interns was 61 per cent male and 39 per cent female. The average age of the interns was 28. Hierarchical regression analyses were used with overall  $F = 2.96$  ( $p < .05$ ). Most of the interns worked in marketing or finance, and a few in general management, accounting, and operations management. The interns worked in a wide range of industries that included information technology, consumer products and services, pharmaceuticals, banking and finance, and manufacturing.

Protégés on expatriate assignments often believed that host country mentors will be of little help to them, and that real or perceived cultural differences between the protégé and the mentor might impact the initiation and development of the relationship (Feldman & Thomas, 1992). Similarly, because the host country employees do not have prior knowledge of the expatriate's culture and abilities, they may hesitate on taking up the role of host-country mentors (Toh & DeNisi, 2005). This could be especially true for short-term expatriate assignments where assigning mentors from the home-country culture actually makes it easier for mentors and protégés to develop close relationships with each other and allows them to communicate with each other more easily and accurately (Feldman, Folks, & Turnley, 1999). Despite the existence of cultural differences, protégés on expatriate assignments who had host-country mentors received psychosocial support as they navigated through the challenges of meeting new co-workers, and adapting to new cultural norms (Carragher, Sullivan, & Crocitto, 2008).

Extending the investigation of the role of culture in mentoring relationships to nationalities, Feldman and Bolino (1997) found that the culture of the host country

influences the amount of mentoring received by expatriate protégés. Gentry, Weber, and Sadri (2008) indicated that cultures that placed a high value on performance orientation (PO), viewed mentoring as a beneficial relationship, and that mentoring was positively related to supervisor ratings of managerial performance. Performance orientation was defined as “the degree to which an organization or society encourages and rewards group members for performance improvement and excellence” (House & Javidian, 2004, p.13). Because mentoring is a relationship that focuses on partnership, growth, and feedback, the findings appeared consistent with Javidian’s (2004) suggestion that cultures high in PO, valued training and development, and saw feedback as essential for improving performance. Some of the highly performance oriented cultures included U.S.A., Canada, Italy, and Germany. On the other hand, collectivist cultures value group membership and interpersonal relations; therefore, employees in these cultures are more likely to receive training and supervisory attention (Crocitto, Sullivan, & Carraher, 2005).

### **Mentoring outcomes.**

In cross-cultural mentoring, host country mentors contributed significantly to increased job satisfaction (Feldman & Bolino, 1997), and better job performance (Carraher, Sullivan, & Crocitto, 2008). The participants in Feldman and Bolino’s (1997) study consisted of 490 expatriates working for a Fortune 100 multinational corporation in the technology industry. The sample was 85 per cent male and 15 per cent female. Seventy-five per cent of the sample was married and between 30 and 49 years of age. The participants in the study had been expatriates an average of one-and-a-half years and had worked for the company an average of eleven years. The expatriates were located in nineteen countries and mainly worked in engineering/R&D (52 per cent), marketing (31

per cent) and finance (10 per cent). The assignment countries were: Australia, Belgium, Canada, France, Germany, Great Britain, Hong Kong, Hungary, Ireland, Italy, Japan, Korea, Mexico, Netherlands, Singapore, Spain, Switzerland, Venezuela and the United States. Fifty per cent of the expatriates who were mainly from Pacific Rim (e.g. Japan, Singapore, etc.) and Western Europe (e.g. Italy, Germany, Spain, etc.) were assigned to the United States. The assignments of the other half of the sample were split evenly between the Pacific Rim and Western European countries. All participants in the study were fluent in English. A structural equation model that was used to test the proposed relationships in the study indicated that host country culture has a significant impact on the amount of mentoring received. Contrary to the researchers' hypothesis, expatriates individualistic cultures rather than collectivist cultures seemed to promote more mentoring. Amount of mentoring received was positively related to expatriate socialization, which, in turn was positively related to job satisfaction.

### **Personality and Mentoring**

The cognitive and affective structures maintained by individuals to facilitate their adjustments to events, people and situations are referred to as personality (Zmud, 1979). Specific personality attributes that might be influential in mentoring relationship were open communication, friendliness, and flexibility (Theophilides & Terenzini, 1981; Turban & Dougherty, 1994), accessibility and availability (Wilson, Woods, & Gaff, 1974), empathy and respect (Chang, 1981), and locus of control (Ellinger, 2002; Judge & Kammeyer-Mueller, 2007; Kim & Kim, 2007; Turban & Dougherty, 1994). Even though there has been debates over the validity of the five factor model of personality (Bozionelos, 2004), it still remains the most comprehensive, robust, and generalizable

model of personality traits (Engstrom, 2004), and most of the articles that discussed the role of personality in mentoring used the model. The five factor model of personality consists of extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience. Research findings about mentoring functions and mentoring outcomes as they relate to personality are presented below.

### **Mentoring functions.**

Personality traits contributed more strongly than contextual variables to protégés attempts to initiate mentoring relationships. However, the contribution of personality traits to self-reported amount of mentoring functions received by protégés appeared to be lesser than that of contextual variables (Aryee, Lo, & Kang, 1999). Individuals high in extraversion were overall positive thinking, cheerful, outgoing, great in communication skills, and preferred social interaction. Because high self-esteem and high level of extraversion were the same dimensions of personality, persons with high self-esteem and high communication skills were more likely to provide better mentoring functions (Engstrom, 2004). Another study reported that extraversion was indirectly related to mentoring functions received through protégé- initiated mentoring relationships (Aryee, Lo, & Kang, 1999). Studies related to mentor personality characteristics reported that desirable mentors were emotionally intelligent, caring, humorous, flexible, empathic, and patient. Good mentors were interpersonally supportive and altruistic whereas individuals that were aloof, critical, demeaning, and indifferent were ineffective mentors (Ellinger, 2002; Johnson, 2002). Protégés who were found to have initiated mentoring relationships also scored high on the emotional stability dimension of personality that denoted the

tendency to display anxiety, self-pity, and react with strong emotional outbursts (Judge & Kammeyer-Mueller, 2007; Turban & Dougherty, 1994).

The study that found relationships between emotional stability scores and initiation of mentoring involved 147 professionals and managers. Turban and Dougherty (1994) used structural equation modeling to explore the relationships. Results indicated that initiation of mentoring mediates the relationship between the personality characteristics and mentoring received. In another study with 176 mentors who were administrators in three universities in the northwest of England, Bozionelos (2004) found that individuals with varied interests and interest in new experiences and ideas were more likely to provide mentoring functions therefore implying that openness can be included amongst the criteria for mentor selection in formal mentoring programs. Hierarchical regression was used and openness to new experiences ( $\beta=.16$ ;  $t = 2.18$ ;  $p < .05$ ) and mentoring received further added to the amount of total variance accounted for ( $\beta=.20$ ;  $t = 2.71$ ;  $p < .01$ ). In another study, Allen (2004) found that prosocial personality variables (other- oriented empathy, helpfulness) were related to willingness to mentor others. However, only helpfulness was related to career support mentoring while only other-oriented empathy was related to psychosocial support mentoring.

Internal locus of control, high self-monitoring, and higher needs for achievement were related to protégés' initiation of mentoring relationships (Ellinger, 2002; Judge & Kammeyer-Mueller, 2007; Kim & Kim, 2007; Turban & Dougherty, 1994). Because internal locus of control helped one in seeking appropriate avenues to buffer against stress (Cochran & Laub, 1994), one would infer that a protégé with internal locus of control might buffer the stress in a new environment by the initiation of mentoring relationships (Kram,

1996). At the same time, however, Aryee, Lo, and Kang (1999) did not find any relationship between protégé locus of control and mentoring received. Other studies found that mentors' intentions to mentor were associated with mentors' proactivity (Marchese, 2006), and mentors' career aspirations (Emmerik, Baugh, & Euwema, 2005).

In a quantitative study of 526 first-line supervisory mentors, Allen, Poteet, Russell, and Dobbins (1997) found that mentor's willingness to mentor was associated with mentors' internal locus of control and upward striving. The mentors were employed by a large southeastern state government and held positions in 32 different departments within state government (e.g., Transportation, Human Services, Finance and Administration). In each department, first-line supervisors were those at the lowest managerial level who directly supervised non-managerial employees. Hierarchical regression was used and standardized  $\beta$  coefficients were used to determine support for each of the hypotheses. For intention to mentor, the overall model accounted for 21% of the variance ( $F = 15.46, p < .001$ ). A positive relationship between internal locus of control and willingness to mentor others ( $\beta = .12, p < .01$ ), and a positive relationship between upward striving and willingness to mentor others ( $\beta = .15, p < .001$ ) were found.

### **Mentoring outcomes.**

Personality characteristics have an indirect influence on protégés' career attainment in terms of salary, promotions, and job satisfaction through influencing initiation of mentoring and mentoring received (Bono & Colbert, 2005; Turban & Dougherty, 1994). The extraversion dimension of the mentor's personality had the strongest correlation with protégés' perceived success of the mentoring relationship

(Ellinger, 2002; Engstrom, 2004). Agreeableness that covered the tendency to be appreciative, forgiving, trusting, and sympathetic had a high relation to the mentors' perceived success of the mentoring relationship. It also showed the second highest correlation with protégés' perception of success of the mentoring relationship. Conscientiousness that denoted tendencies to be efficient, reliant, and organized had the third highest correlation. Lower level of conscientiousness of the mentor and higher level of conscientiousness of the protégé showed a higher perception of success of the dyad. Mentors scoring themselves high on emotional stability perceived greater successes in their relationships. Protégés' perception of success was also higher when they scored themselves high on openness to experiences (Engstrom, 2004). Protégé conscientiousness was significantly positively related to protégé performance in teaching, research, and career preparedness among graduate students (Shaffer, 2003).

In a study involving 166 junior administrative and information technology (IT) staff at an Australian university and their matched mentors, Waters (2004) found that when protégés and mentors had personalities exhibiting high levels of agreeableness, openness, and extraversion (and conscientiousness for protégés), trust and communication in the relationship were fostered. These led positively to job satisfaction and organizational commitment/reduced intent to turnover for both protégés and mentors. Mentors and protégés completed a questionnaire that assessed protégé and mentor personality (agreeableness, openness, extroversion, neuroticism, and conscientiousness) as an antecedent to protégé-mentor agreement (PMA). Protégé-mentor agreement was positively related to job satisfaction and organizational commitment for protégés and mentors. Structural Equation Modeling revealed that PMA was predicted by protégé

personality (agreeableness, openness, extroversion, and conscientiousness), and mentor personality (agreeableness, openness, and extroversion).

Mentoring research has consistently described the career and psychosocial benefits that motivate individuals to engage in mentoring relationships, and the role played by gender, ethnicity, culture, and personality variables in reaping those benefits. But the ubiquity of these relationships perhaps suggested that something more fundamental other than rewards drove these relationships. The relationship between one's career and psychosocial development suggested that certain adult developmental outcomes played key roles in buffering against stress by engaging in interpersonal relationships in the workplace (Merriam & Yang, 1996). Mentoring is a workplace interpersonal relationship that is essentially developmental in nature and involves close, intense, and dyadic interpersonal interaction (Kram, 1985). It is through the mentor that the newcomer in an organization finds relief from stress, isolation, lack of role definition, and low job satisfaction (Schrodt, Cawyer, & Sanders, 2003). Because this study is about mentoring relationships, it is logical to discuss those adult developmental outcomes and the research exploring relationships between early life social experiences (attachment) and adult development. Attachment theorists regard early life social experiences invaluable because the quality of such experiences has lifelong immutable impact on individuals. Manning (2003) asserted that relationship competence derives from relationship tendencies developed through early life experiences, modified through later life experiences, and manifested in work and personal experiences. The following section lays out attachment theory and its possible role in mentoring as an instrumental relationship.



## **Attachment Theory**

Attachment theory is concerned with the nature of close emotional bonds or attachments that are developed early in life and how these unique intimate relationships affect the course of life (Bowlby, 1988). Beginning in the mid-1980s, the groundwork was laid for examining the attachment system in adults, and several new lines of research emerged. Current theory and research on adult attachment draw heavily on Bowlby's (1988) concept of attachment representations or working models. These models guide behaviors and influence expectations and strategies in adult relationships (Bretherton, 1985).

One of the basic tenets of attachment theory is that an individual's early attachment experiences are internalized over time through the development of internal working models of attachment (Bowlby, 1988). Infants explore their environment with an assurance in their mind about the availability of their secure base, also called their attachment figure. When they find certain stimuli to be frightening, they are more prone to activate attachment behavior. Also the proximity and availability of an attachment figure, usually the mother, makes the infant much less susceptible to fear. Sometime between the third and fourth birthday, a child forms a goal-corrected partnership with the mother which is facilitated by language development. Because of communication between the mother and the child, some parts of the child's developing personality maybe nurtured while some others may be ignored and may go out of synchrony with the parts that are being nurtured. The child's confidence in the stability of this partnership enables him or her to internalize the working model of his or her relationship with the mother. With development of locomotion capabilities, the child is able to venture and explore

further away from the secure base and form connections with playmates and also strangers. During adolescence, the young person ventures even farther and seeks out relationship with the opposite sex in which the attachment, care giving, and reproductive systems come into play. In adulthood, though the individual is autonomous, there is no cessation of attachment with the parent (Ainsworth, 1989). This association of a control system with attachment theory and its connections with internal working models are regarded as primary features of personality functioning all through life.

Working models are mental representations of the self and others, which guide how people regulate emotion, and process information in close relationships such as with partner, spouse, teacher, a foster-mother, therapist etc. (Bowlby, 1988). Individuals develop certain attachment patterns or styles, the formations of which are immensely influenced by how the individual is treated by the primary attachment figure in early life. Behavioral researchers in infancy literature consider Bowlby's approach as ethological and explain infant behavior through a social conditioning approach in the context of the maternal cues and reinforcements arising from those cues (Gewirtz & Pelaez-Nogueras, 1987, 1992). However, Gewirtz (1961) argued that the ethological and the social conditioning approaches were actually complementary because they were both concerned with unlearned behavior, learned behavior, and the environmental conditions under which those behavior types occur, are fostered, maintained, or inhibited. Strong bonds between an infant and mother foster strong bonds in the child's later relationships, whereas insecure bonds between an infant and mother generalize unfavorably to future relationships (Marcus & Sanders-Reio, 2001). Bartholemew and Horowitz (1991) described the four prototypic forms of adult attachment styles: Secure, Preoccupied,

Dismissing, and Fearful. Out of the four, secure adults have a sense of worthiness plus an expectation that other people are generally accepting and responsive to their support seeking endeavors. Preoccupied adults have low self-esteem and high regard for others, dismissing adults have high self-esteem and low regard for others, and fearful adults have low self-esteem and low regard for others. The quality of early life relationships mold human beings' self-images of competence and lovability, and their general expectations about the credibility and dependability of others to provide support in critical times (Bowlby, 1988). The capacity of an individual to form intimate emotional bonds with other people whether in the care giving or the care seeking role, is regarded as an important feature of effective personality functioning. Bartholomew and Horowitz (1991) developed a self-report measure, the Relationship Questionnaire that distinguishes between secure and insecure adult attachment styles. Adults are asked to indicate which of the following statements sounds most like them:

Secure attachment style--"It is easy for me to become emotionally close to others. I am comfortable depending on them and having them depend on me. I don't worry about being alone or having others not accept me."

Insecure attachment style--Dismissive: "I am comfortable without close emotional relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me."

Insecure attachment style--Fearful: "I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others."

Insecure attachment style--Preoccupied: "I want to be emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them."

There are mixed reports about the persistence of individual differences of attachment styles. Attachment styles were believed to persist unless family relations and the environment changed (Bowlby, 1988). Not many studies of the persistence of attachment patterns had initially been done beyond the sixth year. Results from a 25 year longitudinal study demonstrated that the three attachment groups – secure, avoidant, and anxious-ambivalent (Hazan & Shaver, 1987) maintained distinct internal models from age 27 to 52 (Klohnen & John, 1998). In this longitudinal study, a sample of 70 women who graduated in the 1950s were followed at ages 27, 43, and 52. ANOVA was conducted that showed consistent main effects for attachment group and lack of interactions between attachment group and time. These results provided evidence of the validity of the working model prototypes over a 25 year period. Three other longitudinal studies (Cloninger, 2004; Hamilton, 2000; Waters, Merrick, Treboux, Crowell, & Albersheim, 2000) verified that attachment relationships persisted from early life to adulthood. Another study (Weinfield, Sroufe, & Egeland, 2000) did not find any significant continuity of attachment patterns over time.

Attachment styles are also universal and consistent across cultures. Extensive cross-cultural research has established that the attachment system is built on infants' need and dependency upon care-giving and is an innate and universal system (Manning, 2003). Van Ijzendoorn and Sagi (1999) in a series of 14 studies spanning Africa, China, Israel,

and Japan found that the cultural environment where a child is raised influences the probability and the specific behaviors of secure and insecure attachment styles.

Attachment theory has been linked with adult developmental outcomes (Collins, 1996; Corcoran & Mallinckrodt, 2000; Doverspike, Hollis, Justice, & Polomsky, 1997; Hazan & Shaver, 1990), work behaviors (Corcoran & Mallinckrodt, 2000; Hazan & Shaver, 1990; Kummel, 1998), and career development (Blustein et. al., 1995; Wolfe & Betze, 2004). Because this study is about mentoring relationships in a work setting that typically occur between adults, the following sections are presented that highlight some of the conceptual pieces and empirical findings from the literature associated with adult developmental outcomes, work behaviors, and career development.

### **Attachment and Adult Developmental Outcomes**

Crowell, Fraley, and Shaver (1999) identified two central aspects of attachment theory that are keys to understanding attachment in adulthood: (a) the attachment system is active in adults, and (b) there are individual differences in adult attachment behavior that have their foundations in attachment experiences and are embodied in the working models. In a study involving 135 participants, Collins (1996) found that adults with different attachment styles are predisposed to behave differently in relationships largely because they think and feel differently within themselves. MANOVA was used to analyze the data in the study that revealed a significant multivariate effect of attachment style on attribution for their relationship partner's behavior (Wilks' lambda = .72,  $F(14,252) = 3.19, p < .01$ ). Attachment security is associated with empathy, self-disclosure, conflict resolution skills (Corcoran & Mallinckrodt, 2000; Doverspike et al, 1997; Hazan & Shaver, 1990), constructive coping with stress, and social support (Anders & Tucker,

2000). Ryan and Deci (2000) suggested that attachments to others facilitated autonomy. Individuals with secure attachment styles know that acknowledgement of stress elicits supportive responses from others and turning to them is an effective route to enhanced coping. With confidence that support is available when needed, secure individuals can engage in autonomy-producing activities (Mikulincer, Shaver, & Pereg, 2003). Attachment has also been linked with curiosity and exploratory behavior that help individuals flexibly adapt to changing environmental conditions (Reio, Petrosko, Wiswell, & Thongsukmag, 2006). Based on associations between attachment styles and several adult developmental outcomes, Hazan and Shaver (1990) were the first to theorize that adult work activity can be considered as functionally analogous to exploration. Adults consider work a main source of actual and perceived competence similar to play and exploration in early childhood.

### **Attachment and Work Behaviors**

Attachment is related to the behaviors of adults at work. In work life, adults belong to organizations. Hirschi's social control theory (1969) views attachment as global, and a property of an individual's emotional bonds to society and institutions, for example to organizations. Moreover, Elliot and Reis (2003) established that attachment styles were related to exploration in adulthood. Hazan and Shaver (1990) in a major study also found that attachment was related to exploration, that they conceptualized as work orientation. In a survey of over 1000 participants, where the researchers conducted MANOVA to analyze the data, a highly significant overall effect of attachment type was found  $F(28, 1,130) = 3.84, p < .001$ . Secure respondents reported higher overall job satisfaction, felt that they were valuable workers, and were confident that co-workers

evaluated them highly. Anxious/ambivalent respondents expected co-workers to undervalue them, and avoidant respondents gave themselves lower ratings on job performance and expected similar ratings from co-workers too.

Several studies followed the footsteps of Hazan and Shaver (1990) linking attachment theory with behaviors at work which indicated that securely attached employees showed more resilience (Klohn & Bera, 1998), higher self-esteem (Meyers, 1998), and had stronger coping mechanisms to deal with stress than those with insecure styles (Caldwell, 1994). Securely attached adults were more socially competent (Caldwell, 1994), were likely to use collaborative communication (Kummel, 1998), and were more receptive and appreciative of negative interpersonal feedback (Neuson, 1998). They reported higher levels of personal competence than insecurely attached adults (Meyers, 1998) and yet focused more on relationships than tasks (Doverspike, Hollis, Justice, & Polomsky, 1997). Therefore, secure attachment could be seen as an anchor for relationship competence and social competence.

Further, Kummel (1998) and Corcoran and Mallinckrodt (2000) linked low levels of perspective-taking and low social self-efficacy of avoidant adults with their lower use of shared conflict resolution abilities as compared to secure adults. This is particularly significant in work behaviors because in a study of 289 employees in 3 companies, Trudel (2009), using hierarchical regression to analyze the data, found that use of collaborative conflict resolution style is associated with higher organizational commitment ( $\beta = .30, p < .01$ ), and lower intent to turnover ( $\beta = -0.22, p < .01$ ) with effect sizes of 24% and 18% respectively. Avoidant adults were significantly less

satisfied with interpersonal activities during work, particularly interacting with co-workers (Hardy & Barkham, 1994; Hazan & Shaver, 1990; Manning, 2003).

The preoccupied and fearful adults were the least satisfied with work relationships (Hazan & Shaver, 1990) and were more likely to use defensive coping strategies (Kummel, 1998). Erikson (1963), Bowlby (1988), and Bartholomew (1990) asserted that individuals learn to trust early in life and that trust can be seen as a tendency or a trait that an individual carries from early childhood into relationships later in life. In a study of about 400 employees, Adams (2004) found through a hierarchical multiple regression analysis ( $\beta = -.324$ ,  $p = .009$ ) that fearful attachment was statistically significant and negatively related to trust and explained 13% to 16% of the variance in trust of peers and upper level management.

### **Attachment and Career Development**

In career development research, Blustein et. al. (1995) presented a strong theoretical explanation of the reasons why the experience of felt security provided by secure attachment relationships should enable (a) exploration of the self and environment, and (b) development through career decision making and commitment processes. They indicated that taking up a new position involves risks and challenges similar to early phases of career development and infant development. One of the main characteristics of progress in career decision making is readiness to explore the environment, and self-efficacy is proposed to assist in pursuing such exploration. Because attachment theorists' strongly emphasize linkages between insecure attachment and inhibition of exploration and developmental behaviors, possible linkages to career decision-making self-efficacy and anxiety of career commitment seem worthy of research efforts. "The sense of having



a secure base provides an individual with a framework for maintaining well-being, formulating effective emotional-regulation devices, developing positive models of the self and others, and engaging in exploration and risk-taking” (Mikulincer & Shaver, 2001, p. 97). In a study of 304 students enrolled at a large midwestern university, Wolfe and Betze (2004) using correlational analysis found that both career decision-making self-efficacy and career indecisiveness were related to the quality of parental and peer attachment bonds, (at  $p \leq .05$ ,  $.01$ , and  $.001$ ) although the relationship was stronger with career indecisiveness.

### **Attachment and Mentoring**

Attachment theory helps explain why individuals who do not form secure attachments during early life are inclined to struggle in comprehending and preserving their adult relationships (Rholes, Simpson, & Stevens, 1998). Because mentoring is an adult relationship forged at work to promote career development, it appears that early life social experiences could play a significant role in mentoring relationships. Unless a person’s internal working model underwent transformation due to changing conditions, the same model that was developed as a result of early life social experiences would continue to impact his or her mentoring relationship. By focusing on attachment theory, we may be able to better understand the interpersonal nature of a mentor-protégé relationship (Kummel, 1998). Among individual differences studied in mentoring research, attachment styles could be a very significant one because such a linkage could better explain why and when there will be positive or negative outcomes in mentoring relationships and therefore, better inform the process of mentor-protégé pairing in mentoring programs (Armstrong, Allinson, & Hayes, 2002).

Empirically, personality has been found to impact a person's behavior in mentoring relationships in terms of open communication, extraversion, agreeableness, flexibility (Engstrom, 2004; Theophilides & Terenzini, 1981; Turban & Dougherty, 1994), accessibility and availability (Wilson, Woods, & Gaff, 1974), and empathy and respect (Chang, 1981). The linkage between attachment styles and personality functioning (Bowlby, 1988), makes it natural that early life social experiences plays a significant role in adult mentoring relationships. In a study of 186 adults that investigated the influence of attachment styles on personality variables, Caldwell (1994) found that attachment as a whole was a significant predictor of six personality variables – well-being, trust, sociability, endurance, anxiety, and satisfaction with social support. In another study involving 239 adults, Shaver and Brennan (1992) found that attachment styles whether measured categorically or on continuous scales were significantly related to at least three of the five traits of the Five Factor model of personality. Secure adults scored significantly higher on the extraversion, agreeableness scales and lower on the neuroticism (anxiety) scale than the other attachment styles. Collins and Read (1990), and Kobak and Sceery (1988) found that secure adults had greater estimates of self-worth and their confidence in others. With trust, openness, possession of an internal locus of control, and need for nurturing such important components of mentoring relationships (Johnson and Huwe, 2003; Noe, 1988a; Phillips-Jones, 1982; Turban & Dougherty, 1994), and secure attachment styles related to trust (Adams, 2004; Collins & Read, 1990; Hazan & Shaver, 1987), while avoidant attachment styles shying away from relationships (Kobak & Sceery, 1988; Mikulicer, Florian, & Tolmacz, 1990), researchers recently started examining the relationship of attachment styles in mentoring relationships.

Empirical findings from mentoring research conducted with young adults in college, and conceptualizations from youth mentoring suggest relationships between attachment styles and mentor-protégé experiences (Bernier, Larose & Soucy, 2005; DuBois & Karcher, 2005; Larose & Bernier, 2001). Because mentoring involves interpersonal relationships, it is not surprising that studies have found attachment security influencing mentoring. Protégés with insecure attachment styles had difficulties in establishing relationships with mentors. Specifically, individuals presenting high dismissing attachment tendencies reported difficulties in seeking help from college mentors and had low levels of trust in potential supporters (Larose & Bernier, 2001). Further, in a study of 102 college students who were mentored by 10 faculty mentors, both dismissing and preoccupied attachment styles of the protégés were associated with negative evaluations of mentoring relationship and lower perceptions of security in mentoring (Larose, Bernier, & Soucy, 2004). In another landmark study involving 90 students and 10 faculty mentors, Bernier, Larose and Soucy (2005) examined the influence of mentor and protégé attachment styles on protégés' comfort with self-disclosure and proximity. Self-disclosure is an important component of developing relationships as part of the mentoring process where individuals share information about their experiences (Rocco, 2004). The researchers found that contrasting attachment styles interacted to predict protégés' self-disclosure and comfort with proximity, and their satisfaction with mentoring. For students with Preoccupied attachment styles, higher the level of preoccupation, professor avoidance predicted higher student self-disclosure (professor report;  $\beta = .05, p < .05$ ). For students expressing low levels of preoccupation, professor avoidance predicted lower student comfort with proximity (professor report;  $\beta$

= -.40,  $p < .05$ ). On the other hand, for students with Dismissive attachment styles, higher the level of dismissiveness, professor ambivalence predicted higher student comfort with proximity (student report;  $\beta = .34$ ,  $p \leq .05$ ). The findings of this study suggest that a mentor was most effective when the protégé was provided with a relational stance that was in contrast with the protégé's own. Therefore, people with preoccupied attachment styles could benefit from working with an independence-oriented yet interpersonally competent person. In contrast, an individual who had difficulty developing close relationships might benefit from working with an interpersonally competent person who was comfortable with intimacy.

Attachment theorists assert that a person's internal working model which has been shaped by early social experiences is so immutable that it influences the ability of the person in forming close relationships. Dominant focus on attachment styles as traits has led to a relative neglect of the way that current relationship patterns continue to influence personality and internal working models (Kobak, 1994; Levitt, 2005; Lewis, 1997). Hazan and Shaver (1987, 1990) provide a way of thinking about how adult attachment relationships develop, the functions that they would normally serve, and security of relationships. Additionally, context-specificity of relations represented in the internal working models suggests that multiple attachment relationships play significant roles in developmental outcomes (Sagi-Schwartz & Avezzer, 2005). Bretherton (1991), and van Ijzendoorn, Sagi, and Lambermon (1992) found that secure relations compensated for insecure relations in a network of attachment relations. Adding on to the perspectives of context-specific internal working models and current relationships, is the developmental nature of the mentoring relationship where the mentor can possibly provide a secure base

to a protégé with insecure attachment. The following section looks at the nature of the mentoring relationship itself as discussed in the literature, and conceptualizes mentoring as an attachment relationship.

### **Mentoring as an Attachment Relationship**

Over the years, mentoring research literature has looked at mentoring as a tool for employee and organizational development. It is also worthwhile to note that all empirical findings relating attachment styles to mentoring relationships were cross-sectional in nature, and the notion that current relationships may influence attachment styles was only offered as a possible suggestion (Kobak, 1994). This review did not find any studies that longitudinally assessed attachment styles of mentors and protégés from the initiation of the mentoring relationship through the progression of the relationship. Despite some similarities in functions between mentoring and attachment relationships, not much research has explored the relationship between the two (Noe, 2002). Just as empathic and supportive parenting were predictive of attachment security in youth, at the core of the mentoring relationship is the bond that forms between the mentor and the protégé (DuBois & Karcher, 2005, Rhodes, 2005). Ainsworth (1989) mentioned that mentors could be potential attachment figures. Levinson, Darrow, Klein, Levinson, and McKee (1978) described the mentor-protégé relationship in terms of a parent-child interaction. The mentor helps the protégé examine the basic assumptions on which he or she operates and then move to the highest levels of development and thinking. The mentor thus helps the protégé go through his or her transformational journey (Daloz, 1986). In a supportive mentoring environment, a protégé can experiment with new levels of transition and move on, feeling that he or she is supported and can even return to that safe place (the mentor)

whenever necessary (Kegan, 1982). This notion is similar to the concept of returning to the secure base in an attachment relationship and is supported in Kahn's (1996) view of caregiving relationships in organizational settings that offers a way to conceptualize secure base relationships at work. In such circumstances, where high quality mentor-protégé relationships develop, deep emotional bonds, common interests and goals also develop. These kinds of relationships are termed relational mentoring and they are life-sustaining and promote mutual development (Ragins & Verbos, 2007).

Looking at mentoring as a developmental relationship, mentoring researchers could argue that mentoring may be able to buffer the negative impact of attachment insecurity that occurs due to early life social experiences. Social network theorists claim that changes to internal working models can occur when individuals encounter new, more appropriate figures, lose significant others, or reevaluate the old figures according to their development (Kahn & Antonucci, 1980; Lewis, 1997). Though internal working models are predicted to persist unless the conditions change (Bowlby, 1988), there are people who are successful in getting an earned secure attachment (Takahashi, 2005). Blustein et al. (1995) specifically refer to mentoring relationships in this context: "Whereas not all mentors or supportive work relationships contain the full array of properties of attachment relationships, some of the interpersonal bonds developed at work may resemble selected aspects of attachment relationships or may actually become attachment relationships" (p. 426). Therefore, a protégé's internal working model could actually turn out to be malleable and may change progressively through the mentoring experience. With theories of adult development supporting the notion that adults reframe and

reconstruct their “selves” with the help of support in their environment, it is very likely that mentors could serve as that support.

Support is critical to adults in times of transitions (Merriam & Caffarella, 1999; Schlossberg, Waters, & Goodman, 1995). A person entering a new work environment is in transition and is in need of support. Conner, Powers, and Bultena (1979) suggest that the quality of supportive interaction defines the effectiveness of the relationship. Even one supportive relationship makes a difference to those who are in transition as compared to those who are in transition without even one supportive relationship (Kahn & Antonucci, 1980). Therefore, having one good mentor in a new environment would make a difference to a person. Wolf and Leahy (1998) indicate career change as a life transition, and Daloz (1986) and Bloom (1995) provided specific guidance to mentors for helping protégés who are in transition. Through narrative construction, competent mentors could help protégés realize and value their self’s dilemmas, recover and reconceptualize their own histories and futures, and regenerate their internal models (Fenwick, 2000; Parkin, 2004). Supporting role of the mentor is conceptualized in Baird’s (1993) model where mentor activities and the mentoring process, through a reflective and collaborative approach, foster effective change and development. The frameworks, theories, and techniques used in coaching psychology can be seen as means of enhancing the mentoring process too. For example, Bridge’s (1986) transitional model, and Prochaska and DiClemente’s (1984) model of change could be used by mentors to guide their protégés in making meaning of themselves and growing through transitions (Grant, 2004). This is all a part of psychosocial support that enhances protégé esteem and confidence (Kram, 1996).

Though protégé's attachment style could possibly be modified by the mentor, this review of literature did not find either empirical studies or conceptual work on attachment and mentoring that discussed whether a mentor could conceivably go through transformational development during a mentoring relationship. Therefore, a person having an insecure attachment might not be able to competently serve as a mentor because insecure attachment was related to less relationship-orientation, less social competencies, lower levels of perspective taking, and lower uses of collaborative conflict resolution skills (Caldwell, 1994; Corcoran & Mallinckrodt, 2000; Doverspike et al, 1997; Hazan & Shaver, 1990).

### **Summary**

The field of mentoring has had a stream of development over the past two decades that included theory development, research on organizational outcomes, and diversity issues (Scandura & Pellegrini, 2007). Though empirical research and conceptual frameworks in the literature establish links between attachment and mentoring, and links between mentoring and organizational outcomes (job satisfaction, organizational commitment, and intent to turnover), this review did not find any empirical studies that examined the relationships between mentoring, attachment, and organizational outcomes. Scandura and Pellegrini (2004) are the only researchers who conceptualized a model that proposed a typology of mentoring relationships (functional, marginal, dysfunctional, and marginal-dysfunctional) based on attachment styles, and linked it to organizational outcomes. It will be valuable to understand whether attachment styles play a more pronounced role at the beginning of a mentoring relationship or the role is stable throughout the relationship. Some attachment researchers would argue that the internal



working models are immutable traits whereas other researchers would be proponents of the suggestion that mentoring may actually buffer the negative impact of attachment insecurity, thus viewing attachment as a malleable trait that may change progressively through the mentorship received by the protégé. As typical of a new area of study, mentoring researchers and attachment researchers will get a better understanding of the phenomenon as more appropriate research paradigms are developed. The present study, by bringing in attachment theory, attempts to fill in a gap in the mentoring research and practice area, specifically related to job satisfaction, organizational commitment, and intent to turnover, and thus provides a solid base for future research. Chapter 3 details the methods utilized and presents the appropriate context in which this study was conducted.

## CHAPTER III

### METHOD

This study examined the relationships among attachment styles, mentoring, job satisfaction, organizational commitment, and intent to turnover. This chapter describes the research design, population and sample, procedures for data collection, and the research instruments. The chapter concludes with a discussion of the proposed data analysis.

To explore the relationships, the following hypotheses will be tested:

**Hypothesis 1.** Mentor attachment styles are related to their job satisfaction, organizational commitment, and intent to turnover.

**Hypothesis 2.** Protégé attachment styles are related to their job satisfaction, organizational commitment, and intent to turnover.

**Hypothesis 3.** Mentoring (i.e., degree of career and psychosocial support from mentor) is related to protégé job satisfaction, organizational commitment, and intent to turnover.

**Hypothesis 4.** After controlling for gender, and ethnicity, mentor attachment styles and mentoring (i.e., degree of career and psychosocial support provided to protégé) significantly predict job satisfaction, organizational commitment, and intent to turnover.

**Hypothesis 5.** After controlling for gender, and ethnicity, protégé attachment styles and mentoring (i.e., degree of career and psychosocial support from mentor) significantly predict job satisfaction, organizational commitment, and intent to turnover.

## Research Design

This quantitative study used a cross-sectional and correlational design. Quantitative research considers reality to be a fixed, agreed upon, or measurable phenomenon where the researcher predetermines what variables will be studied (Merriam, 2002). Because this study investigated predetermined variables that are distinctly measurable, a quantitative approach was taken. A survey was used to collect the data in this study because surveys are commonly used for data collection due to time and cost efficiencies (Dillman, 2007). A survey study determines and describes the way things are (Gay & Airasian, 2003) and provides a quantitative description of trends, attitudes, or opinions of a population by studying a representative sample of the population. From the sample results, the researcher makes generalizations about the population (Creswell, 2009).

Cross-sectional research involves collecting data from selected individuals in a single time period and produces a snapshot of the population at a particular point of time (Cohen, Manion, & Morrison, 2007). Correlational research determines whether, and to what degree, a relationship exists between two or more quantifiable variables. The degree of relationship is expressed as a correlation coefficient (Gay & Airasian, 2003). In a correlational design, change in one variable is not necessarily caused by the other. However, the existence of a correlation between two or more variables does permit prediction. Crano and Brewer (2002) stated, “The major advantage of correlational research is that it permits the free variation of both variables of interest so that the degree of relationship between them can be determined without the loss of information inherent in the experimental design” (p. 127). Because this study examined the relationships

among attachment styles, mentoring, job satisfaction, organizational commitment, and intent to turnover, a correlational approach was taken.

### **Procedure**

A description of the population and sample, and data collection procedures are presented that explains the method of recruiting participants, the survey protocol, and the survey mechanism that were used.

### **Population and Sample**

The population that a researcher would ideally like to generalize is called the target population, while the population that a researcher can realistically select from is called the available population (Gay & Airasian, 2003). The target population of interest for this study is faculty members who are mentors and protégés in formal faculty mentoring programs. The available population was derived from a formal faculty mentoring program at a university in the United States. The population was secured by obtaining a buy-in from the program director of the faculty mentoring program. The researcher initially contacted the program director through email explaining the scope and purpose of the research, and the potential value that the study would have to those administering mentoring programs. Faculty mentors play a crucial role in guiding, nurturing, and supporting their protégés and in fostering the types of skills that protégés need for a successful career. This makes it crucial that the mentorship process is monitored and evaluated, that high-quality measures of the mentoring relationship are used in the evaluation process, and that these measures are able to identify the factors that are most predictive of professional success (Sambunjak, Straus, & Marušić, 2006; Wanberg, Kammeyer-Mueller, & Marchese, 2006). The program director and the

researcher exchanged emails to clarify several questions that they had for each other. It was agreed that the researcher will enable the program director to review the contents of the survey prior to the administration of the survey questionnaire. Appropriate guidance and approval from the Institutional Review Board at the university were also obtained by the researcher. The entire available population was surveyed in order for the study to have sufficient power.

### **Data Collection**

The researcher used Dillman's (2007) Tailored Design Method (TDM) to administer the survey. The method recommends some guidelines for researchers to follow in order to ultimately increase the response rate. The guidelines include a review of the survey content by knowledgeable colleagues and analysts, and the conduct of a small pilot study. A small pilot study was initially conducted to assist in obtaining content-validity data and to determine the ease of use of the survey instrument. Such a pilot study is recommended by Dillman (2007) as an important step in the pre-testing stage. There were two layers in this pilot study. At the first layer, the researcher sent the survey instrument to four experts in the mentoring and attachment research areas to obtain evidence of content validity and face validity. The experts provided feedback about the appropriateness of questions, and the order of questions. Revisions to the instrument were made based on the feedback received from these experts. At the second layer of the pilot test, about 20 faculty members were identified who had participated in mentoring relationships. The researcher requested them to take the survey and provide feedback about whether the instructions were clear, the questions were easy to follow, and the web-link was working. The researcher made appropriate revisions to the

instrument based on the feedback received. This step was designed to emulate the procedures that were to be used for the research study.

In the actual data collection stage, the researcher sent a pre-notification e-mail to the director of the faculty mentoring program with an explanation of the objectives of the research. The researcher requested the director through email to forward the objectives of the research to the potential participants. Two days after sending the pre-notification e-mail, the researcher sent an e-mail to the director containing the web-link and a request to forward the web-link to the potential participants. The email invitation contained the explanation of the purpose of the study, sought cooperation from the participants, and assured confidentiality of their responses. Instructions were provided on how to access the electronic survey through the Internet link. A week later, a reminder e-mail was sent to the director with the same protocol as the second e-mail to increase the response rate. Lastly, 2 weeks later, a thank you/reminder e-mail was sent to the director with an additional request to remind the participants to complete the survey if the participants had not already done so.

Contrary to Dillman's (2007) recommendation of sending surveys directly to participants, the researcher relied on a mediator (director of the mentoring program) to forward the web-link to the appropriate participants. This option was appropriate because throughout this study, the researcher did not have access to participants' e-mail addresses or any participant information such as names and department affiliations that would jeopardize the outcomes of the study or could breach the confidentiality required for the study. Additionally, having a mediator send the surveys to the participants is known to fuel a higher response rate (Dillman, 2007). Similar approaches of using a mediator while

employing the TDM have been used by Ghosh (2009), Robinson and Reio (2012), Trudel (2009), and Kauffman (2010). A summary of the protocol followed is provided in Table 1 below.

Table 1  
*Data collection protocol summary*

Stage	Day	Procedure
Pre-notification	Day 1	Email to director of program with <ul style="list-style-type: none"> <li>• objectives of research</li> <li>• request to forward objectives to potential participants</li> </ul>
Notification	Day 3	Email to director of program with <ul style="list-style-type: none"> <li>• purpose of the study</li> <li>• expression of appreciation for participants</li> <li>• assurance of confidentiality</li> <li>• instructions to access the web-link on SurveyMonkey</li> </ul>
Reminder	Day 10	Email to director of program with <ul style="list-style-type: none"> <li>• purpose of the study</li> <li>• expression of appreciation for participants</li> <li>• assurance of confidentiality</li> <li>• instructions to access the web-link on SurveyMonkey</li> </ul>
Thank you	Day 17	Email to director of program with <ul style="list-style-type: none"> <li>• thanks to participants</li> <li>• additional request to remind the participants to complete the survey if the participants had not already done so</li> <li>• instructions to access the web-link on SurveyMonkey</li> </ul>

The researcher used an online mechanism called SurveyMonkey™ to administer the survey. SurveyMonkey™ allows for surveys to be completed on a secure server, and the resulting data collected is then downloaded in a database format and imported into SPSS for analysis. The web-link forwarded to the participants as part of the email invitation led directly to the survey questionnaire on SurveyMonkey™. Participants completed the survey at their convenience, and had unlimited access to non-responded sections of the survey until the final page is submitted. However, once completed,

participants had no access to the survey. The online survey method was used in this study because of the following advantages: (a) cost and time efficiency (Mehta & Sivadas, 1995); (b) likelihood of higher response rate because participants only had to point and click through the web-link (Shannon & Bradshaw, 2002); (c) design flexibility and interactivity, anonymity, and ability to reach number of people at various geographical locations (Simsek & Veiga, 2001).

### **Research Instrument**

The research instrument consists of seven parts. The first part captured demographic data of the participants regarding gender, ethnicity, age, and tenure status in the university. The second part of the instrument measured attachment style which is an independent variable in this study. The third part assessed mentoring which is another independent variable in this study. The next three parts measured the dependent variables job satisfaction, organizational commitment, and intent to turnover. All measures were used with the permission of the authors. The last part asked three open-ended questions to capture the perceptions of the participants regarding their mentoring relationships. Responses to these questions were intended to possibly augment the quantitative findings.

Demographic variables were included as statistical controls in the multiple regression equations since previous research indicated that gender and ethnicity influenced mentoring outcomes such as job satisfaction, organizational commitment, and intent to turnover. Descriptive statistics were used with the demographic data. The following sections describe the selection and evaluation of each of the measures that make up the research instrument.



### **Adult Attachment Style (AAS)**

Hazan and Shaver's (1990) Adult Attachment Style (AAS) is one of the two measures of attachment styles that were used in this study. In this self-report measure, participants read descriptions of secure, avoidant, and anxious/ambivalent attachment styles, and indicate the one that best describes how they feel in intimate relationships. This measure has been used widely in attachment research, and has evidence of validity and reliability (Crowell, Fraley, & Shaver, 1999; Elliot & Reis, 2003). The overall test-retest reliability is .6 (Pistole, 1989), and that of secure, avoidant, anxious/ambivalent are .48, .58, and .65 respectively (Levy & Davis, 1988). The instrument is popular due to its brevity, ease of administration, and parallelism with Ainsworth's (1989) infant attachment styles (56% classified as secure, 25% as avoidant, and 19% as anxious-ambivalent). Attachment style is measured through this instrument by asking the respondent to circle one of the following three choices: (a) "I find it relatively easy to get close to others and am comfortable depending on them and having them depend on me. I don't often worry about someone getting too close to me" (secure); (b) "I am somewhat uncomfortable being close to others; I find it difficult to trust them completely and to allow myself to depend on them. I am nervous when anyone gets too close" (avoidant); (c) "I find that others are reluctant to get as close as I would like" (anxious/ambivalent).

### **Attachment Style Questionnaire (ASQ)**

Feeney, Noller, and Hanrahan's (1994) Attachment Style Questionnaire (ASQ) was the other instrument that will be used to measure attachment style. The instrument is (a) not dependent on one's experience in romantic relationships, and (b) measures attachment on a continuous scale rather than a categorical one. Fraley and Waller (1998)

pointed out that forced categorization of a quantitatively distributed variable decreases reliability because it ignores a large percentage (almost 36%) of the variance of scores, therefore causing researchers to observe patterns that do not exist or overlook patterns that do exist. Additionally, the ASQ is a multiple-item scale as opposed to a single-item scale like Hazan and Shaver's (1990) instrument. Multiple-item scales are more reliable than single-item scales because inconsistencies are reduced through multiple items (Spector, 1997). The ASQ covers the features of both Hazan and Shaver's (1987) three models of attachment, and Bartholmew and Horowitz's (1991) four models of attachment, and also parallels themes from Ainsworth's (1989) infant attachment. The instrument consists of 40 items with a 6-point Likert scale that ranges from 1 = "totally disagree" to 6 = "totally agree." Results are summed to obtain the score with the items marked (R) needing to be reverse scored. Items Factor analyses by Feeney, Noller, and Hanrahan (1994) revealed three- and five-factor solutions. The three-factor solution with factors labeled as Security, Avoidance, and Anxiety supported the constructs of Hazan and Shaver (1987). The coefficient alphas for the three factors calculated on a full sample of 470 subjects were .83, .83, and .85, respectively. The test-retest reliability from a subsample of 295 subjects ranged from .74 to .80. The ASQ has been used in studies of academic mentoring (Bernier, Larose, & Soucy, 2005), and workplace relationships (Kummel, 1998). On the basis of interpretability, the ASQ is best suited for measuring attachment styles in a workplace relationship such as mentoring, and will therefore be used in conjunction with Hazan and Shaver's AAS for the purpose of this study. Moreover, the use of two measures of adult attachment was considered for two main reasons: (a) even though both measures assess secure and insecure attachment patterns,

they are not completely overlapping, and (b) the use of two different measures is assumed to add strength to the findings because it represents a type of replication (Markova, Shilkret, & Djalev, 2008).

### **Mentoring Functions Scale**

Noe's (1988a) Mentoring Functions Scale was used to measure mentoring functions. The instrument seeks information about mentoring activities in formal mentoring relationships. It has 21 items that were developed on the basis of career and psychosocial functions identified in previous studies of mentoring relationships through qualitative and descriptive analyses (Burke, 1984; Kram, 1983, 1985; Kram & Isabella, 1985; Roche, 1979; Zey, 1984). Later studies (Jacobi, 1991; Olian, Carrol, Giannantonio, & Feren, 1988) supported the findings that mentors provide support in both career and psychosocial roles. The scale has been used in studies of faculty mentoring (Green & Bauer, 1995; Smith, Smith, & Markham, 2000). Responses to items are provided on 1 to 5 scales (e.g., 1="from a very slight extent" to 5="to a very large extent"). Responses are summed and the average score for each subscale is used for the analyses. Two separate scores are formed reflecting Kram's (1985) career mentoring (including sponsorship, coaching, protection, challenge, and exposure items) and psychosocial (including friendship, role modeling, counseling, and acceptance items) mentoring. The psychosocial functions subscale consists of 14 items, while the career-related functions subscale consists of 7 items. Sample questions from the two subscales are: (a) "Mentor gave you assignments that present opportunities to learn new skills", and (b) "My mentor has interacted with me socially outside of work". Reliability estimates (alpha) for the psychosocial and career-related functions were .92 and .89, respectively. The

intercorrelation between the scales assessing career and psychosocial functions was .49 (Noe, 1988a). The Mentoring Functions Scale has been validated in prior research (Tepper, Shaffer, & Tepper, 1996). Allen, Eby, O'Brien, and Lentz (2008) found that the Mentoring Function Scale is the most widely used measure in mentoring research compared to other scales such as ones developed by Scandura (1992), and Scandura and Ragins (1993).

### **Job Satisfaction Scale**

Spector's (1997) Job Satisfaction Scale (JSS) was used to measure job satisfaction. The JSS is a 36-item scale and responses are provided on a 6-point Likert-type agreement scale to measure employee attitudes about their job and aspects of their job (1 = disagree very much, 2= disagree moderately, 3 = disagree slightly, 4 = agree slightly, 5 = agree moderately, 6 = agree very much). The nine facets of the scale are pay, promotion, supervision, fringe benefits, contingent rewards (performance based rewards), operating procedures (required rules and procedures), coworkers, nature of work, and communication. There are four items in each subscale. Sample questions from each subscale, respectively are: (a) "I feel satisfied with my chances for salary increases;" (b) "There is really too little chance for promotion on my job;" (c) "I like my supervisor;" (d) "The benefits we receive are as good as most other organizations;" (e) "When I do a good job, I receive the recognition for it that I should receive;" (f) "My efforts to do a good job are seldom blocked by red tape;" (g) "I like the people I work with;" (h) "I feel a sense of pride in doing my job;" and (i) "I often feel that I do not know what is going on with the organization". The JSS is scored by the sum of the scores of all the 36 items. The total score can range from 36 to 216. Because the items are combined, the scoring for

negatively worded items is reversed. To reverse the scoring, negatively worded responses are renumbered from 6 to 1 rather than 1 to 6. Spector (1997) reported the coefficient alpha of the JSS as .91 and the test-retest reliability as .71. The coefficient alphas of the sub-scales were reported as ranging from .60 to .82. The sub-scales of the JSS also correlate well with corresponding sub-scales of the Job Descriptive Index (JDI), and the Job Diagnostic Survey (JDS) which are the most validated scales of job satisfaction (Spector, 1997). The JSS has been widely used in measuring job satisfaction in general (Brewer & Clippard, 2002; Rowden & Conine, 2005; Schmidt, 2007), and more specifically in mentoring contexts (Cuesta & Bloom, 1998; Moyes, Williams, & Koch, 2006).

### **Organizational Commitment Questionnaire**

Mowday, Steers, and Porter's (1979) Organizational Commitment Questionnaire was used to measure organizational commitment. The authors described organizational commitment as involving: (a) a psychological orientation measuring the employee's strong belief in and acceptance of the organization's goals and values (also known as affective commitment), (b) the behavioral orientation measuring the employee's willingness to exert considerable effort on behalf of the organization (also known as continuance commitment), and (c) the behavioral orientation measuring the employee's strong desire to remain within the organization (also known as normative commitment). The instrument has 15 items that use a 7-point Likert scale with the following anchors: strongly agree, moderately agree, slightly agree, neither agree nor disagree, slightly disagree, moderately disagree, strongly disagree. A sample item from this instrument is "I am willing to put a great deal of effort beyond what is normally expected in order to help

this organization be successful". Results are summed and divided by 15 to arrive at a summary indicator of employee commitment. Mowday et al. reported internal consistencies (coefficient alpha) ranging from .82 to .93. They used several items that were negatively phrased and reverse scored in an effort to reduce response bias. Previous mentoring studies that used the scale to examine organizational commitment reported internal consistency scores ranging from .80 to .91 (Baugh & Scandura, 1999; Donaldson, Ensher, & Grant-Vallone, 2000; Joiner, Bartram, & Garreffa, 2004; Ragins, Cotton, & Miller, 2000; Scandura, 1997).

### **Michigan Organizational Assessment (MOAQ)**

Cammann, Fichman, Jenkins, and Klesh's (1979) Michigan Organizational Assessment questionnaire was used to measure intent to turnover. The scale measures individuals' thoughts of quitting their current job and the self-reported likelihood of searching for a job within the next year. The three item measure is rated on a 7-point Likert type scale with responses ranging from 1 (extremely disagree) to 7 (extremely agree). The coefficient alpha reported for this scale by Chen, Hui, and Segó (1998) is .78, and by Allen (2001) is .91. Validity of the measure has been reported with coefficients ranging from .81 to .83 (Abraham, 1999; Cammann et al., 1979; Seashore, Lawler, Miruis, & Cammann, 1982). The score is computed by calculating the mean across the items (with one reverse-scored item). A sample item from the scale is "I often think of leaving the organization." The scale has been used to measure intent to turnover in mentoring studies (Ghosh, 2009; Smith, Smith, & Markham, 2000).

## Statistical Analysis

The data were coded and entered for analysis using the statistical software SPSS 18.0 for Windows which is popular statistical software in the behavioral and social sciences (Koh & Murlita, 2003). SPSS is popular because the range of statistics is comprehensive, data may be imported from popular formats, and graphics are of high quality.

Frequency distributions and descriptive statistics were obtained for the survey items and scale scores. The dependent variables in this study were job satisfaction, organizational commitment, and intent to turnover. The independent variables in the study were attachment style and mentoring. Table 2 below shows the relationship among the variables.

Table 2  
*Types of Variables Used in the Study*

General Type of Variable	Specific Variable in This Study
Independent	Attachment style
Independent	Mentoring
Dependent	Job satisfaction
Dependent	Organizational commitment
Dependent	Intent to turnover

The two attachment measures (i.e., ASQ, AAS) were analyzed separately. To address the hypotheses in the study, the researcher used zero-order correlation as well as hierarchical regression analysis. Zero-order correlations are the simple correlation coefficients for the dependent variable Y and all independent variables  $X_i$  separately. Multiple regression allows a test of the relationships among predictor variables and the

dependent variables (Gay & Airasian, 2003). The use of hierarchical regression helps to determine if several independent variables are significant predictors of a dependent variable, while taking into account the other independent variables in the model (Cohen & Cohen, 1983). The significance of hierarchical regression analysis is that it allows for the theoretical ordering of variables for entry into the regression equation (Cohen & Cohen, 1983). Thus, gender and ethnicity were entered as a block of variables that served as statistical controls (first step). Mentoring studies that used hierarchical regression to analyze the data are: Aremu and Adeyoju (2003); Heimann and Pittenger (1996); Mobley, Jaret, Marsh, and Lim (1994); Noe (1988a); Ragins, Cotton, and Miller (2000); Raabe and Beehr (2003); Seibert (1999); and Stallworth (2003), among others.

Zero-order correlation analyses were used for testing hypotheses 1 and 2. Pearson's correlation coefficient will be used to determine if a positive or negative relationship exists between the independent variable and the dependent variable. The coefficient ranges from -1 to +1, with a score near -1 indicating a strong negative relationship between the variables and a score near +1 indicating a strong positive relationship between the variables (Gay & Airasian, 2003).

Zero-order correlation analysis were conducted for testing hypothesis 3 to determine the relationship of mentoring to job satisfaction, mentoring to organizational commitment, and mentoring to intent to turnover for protégés. A statistically significant correlation coefficient will be evidence that mentoring has a direct effect on the outcome variables.

Hierarchical regression analysis were performed to test hypotheses 4 and 5 because the two independent variables attachment styles and mentoring were entered one



after the other and the  $R^2$  and the partial coefficients were determined as each of them entered the regression equation. A major advantage of hierarchical regression is that once the order of the independent variables is specified, a unique partitioning of the dependent variable variance accounted for by the independent variables can be made (Cohen & Cohen, 1983).

To test hypothesis 4, hierarchical regression was appropriate so that after controlling for demographic variables, the strength and direction of the relationships of mentor attachment styles and mentoring taken one after the other to each of the three outcome variables could be determined. The researcher performed three separate hierarchical regressions, after statistically controlling for gender and ethnicity (first step in equation), with attachment style as the first predictor variable (second step), and mentoring as the second predictor variable (third step), with job satisfaction, organizational commitment, and intent to turnover as the dependent variables. Thus, hypothesis 4 tested mentor attachment styles and mentoring as predictors of the three dependent variables, after controlling for the demographic variables. Statistically significant regression coefficients would provide evidence that attachment style and mentoring have a direct effect on the outcome variables. This is the total effect of the independent variables (attachment style and mentoring) on the outcome variables.

Similarly, to test hypothesis 5, hierarchical regressions was appropriate so that after controlling for demographic variables (step 1), the strength and direction of the relationships of protégé attachment styles and mentoring taken one after other to each of the three outcome variables could be determined. The researcher performed separate hierarchical regressions with protégé attachment style as the first predictor variable (step

2) and job satisfaction, organizational commitment, and intent to turnover as the dependent variables. In the third step of the hierarchical regressions, the researcher entered the second independent variable, mentoring, into the equation.

Table 3 shows the types of analyses conducted for each of the hypotheses.

Table 3  
*Types of Analyses*

Hypothesis	Type of Analysis
H <sub>1</sub>	Zero-order correlation
H <sub>2</sub>	Zero-order correlation
H <sub>3</sub>	Zero-order correlation
H <sub>4</sub>	Hierarchical multiple regression
H <sub>5</sub>	Hierarchical multiple regression

Responses to the three open-ended questions were downloaded into Excel. Responses were coded by looking at the patterns or commonly occurring themes.

### **Summary**

This chapter highlighted the design of the study that pertained to the procedure of data collection and data analyses. Included in this chapter, the researcher provided a detailed description of the research design, the research site, the sampling strategy, the survey questionnaire prepared for the data collection procedure, and the statistical methods that were employed for data analyses. The results and discussion of the findings of the study are presented in Chapters 4 and 5.

## CHAPTER IV

### RESULTS

This chapter presents the results of the study and is organized into four main sections: background of the sample, examination of the hypotheses, analysis of responses from open-ended questions, and a brief summary of the chapter. Correlational and hierarchical regression analyses were used to examine the hypotheses and identify important relations between the variables of interest. Prediction methods, such as hierarchical regression, are helpful in determining which set of variables, or predictors, are most closely linked to a specific outcome (Green, 1991).

#### **Background of the Sample**

Fifty protégés participated in this study representing 40% of the total protégé population of 125. Fifty two mentors participated representing 45% of the total mentor population of 116. The participants' background that is, gender, age, ethnicity, and years employed in their current academic unit are examined in the following sections.

#### **Gender**

Seventy percent ( $n = 35$ ) of the protégé sample was female and 30% ( $n = 15$ ) of the sample was male. Approximately 60% ( $n = 31$ ) of the mentor sample was female and about 40% ( $n = 21$ ) of the sample was male.

#### **Age**

A frequency analysis of protégé age indicated that 4% ( $n = 2$ ) of the respondents reported belonging to the 21-29 group, 36% ( $n = 18$ ) to the 30-39 group, 54% ( $n = 27$ ) to the 40-49 group, and finally 6% ( $n = 3$ ) to the 50-59 group. A frequency analysis of mentor age indicated that 3.8% ( $n = 2$ ) of the respondents reported belonging to the 30-39

group, 23.1% ( $n = 12$ ) to the 40-49 group, 55.8% ( $n = 29$ ) to the 50-59 group, 13.5% ( $n = 7$ ) to the 60-69 group, and finally 3.8% ( $n = 2$ ) to the 70-79 group.

### **Ethnicity**

A frequency analysis of protégé ethnicity indicated that 84% ( $n = 42$ ) of the respondents were White, 6% ( $n = 3$ ) African American, 4% ( $n = 2$ ) Hispanic, 4% ( $n = 2$ ) Asian, and 2% ( $n = 1$ ) selected “other.” No protégé respondent indicated affiliation with an American Indian or Alaskan native ethnicity. A frequency analysis of mentor ethnicity indicated that 90.4% ( $n = 47$ ) of the respondents were White, 1.9% ( $n = 1$ ) African American, 1.9% ( $n = 1$ ) Hispanic, and 5.8% ( $n = 4$ ) Asian. No mentor respondent selected American Indian or Alaskan native ethnicity or the “other” category.

### **Years Employed Within Current Academic Unit**

For protégés, a frequency analysis of the number of years of employment in the current academic unit indicated that 50% ( $n = 25$ ) were employed less than a year, 24% ( $n = 24$ ) were employed between 1 to 5 years, 2% ( $n = 1$ ) were employed between 5 to 10 years. For mentors, a frequency analysis of the number of years of employment in the current academic unit indicated that 3.8% ( $n = 2$ ) were employed between 1 to 5 years, 7.7% ( $n = 4$ ) were employed between 5 to 10 years, 32.7% ( $n = 17$ ) were employed between 10 to 15 years, 13.5% ( $n = 7$ ) were employed between 15 to 20 years, 19.2% ( $n = 10$ ) were employed between 20 to 25 years, 9.6% ( $n = 5$ ) were employed between 25 to 30 years and 13.5% ( $n = 7$ ) were employed more than 30 years. Table 4 provides a frequency table of all demographic variables of protégés examined in this study.

Table 4

*Frequency Table of Demographic Variables – Protégés*

Category	Variable	<i>f</i>	Percent
<i>Gender</i>	Male	15	30
	Female	35	70
	Total	50	100
<i>Age</i>	21-29 years	2	4
	30-39 years	18	36
	40-49 years	27	54
	50-59 years	3	6
	Total	50	100
<i>Ethnicity</i>	White	42	84
	African American	3	6
	Hispanic	2	4
	Asian	2	4
	Other	1	2
	Total	50	100
<i>Years employed</i>	Less than 1 year	25	50
	1 – 5 years	24	48
	5 – 10 years	1	2
	10 - 15 years	0	0
	Total	50	100

Table 5 provides a frequency table of all demographic variables of mentors examined in this study.

Table 5

*Frequency Table of Demographic Variables – Mentors*

Category	Variable	<i>f</i>	Percent
<i>Gender</i>	Male	21	40.4
	Female	31	59.6
	Total	52	100
<i>Age</i>	30-39 years	2	3.8
	40-49 years	12	23.1
	50-59 years	29	55.8
	60-69 years	7	13.5
	70-79 years	2	3.8
	Total	52	100
<i>Ethnicity</i>	White	47	90.4
	African American	1	1.9
	Hispanic	1	1.9
	Asian	3	5.8
	Total	52	100
<i>Years employed</i>	1 – 5 years	2	3.8
	5 – 10 years	4	7.7
	10 - 15 years	17	32.7
	15 – 20 years	7	13.5
	20 – 25 years	10	19.2
	25 – 30 years	5	9.6
	More than 30 years	7	13.5
	Total	52	100

### **Cross Tabulation of Background Demographic Variables**

Cross tabulation analyses of the demographic variables were examined for meaningful relationships using inferential statistics. Inferential statistical procedures such as chi-square analysis help researchers draw conclusions about a population from a sample and provide evidence regarding the generalizability of findings to a broader population (Creswell, 2005). In this section, chi-square analysis was used to test the null hypothesis ( $H_0$ ), meaning there is no significant difference between the expected and observed result of a given variable distribution (Hinkle et al., 2005). A chi-square test is

often used to compare the distribution of a sample variable with a given theoretical distribution, often the normal distribution (Green, 1991). The degree of freedom (*df*) provides information on how many data points were used to calculate a particular statistic and the *df* is usually one less than the number of variables. The *p* value is the probability that the deviation of the observed from that expected is due to chance alone (Creswell, 2005). Using  $p < 0.01$ , for example, any deviation can be expected to be due to chance alone 1% of the time or less. Table 6 lists the variables of the calculated chi-square ( $\chi^2$ ) for protégés.

Table 6

*Demographic Variable Cross Tabulation - Protégés*

Variable Combination	$\chi^2$ Value	<i>df</i>	<i>p</i>
Gender and Ethnicity	4.08	4	.39
Gender and Age	2.38	3	.49
Gender and Years employed	1.50	2	.47
Age and Ethnicity	4.36	12	.97
Age and Years employed	1.57	6	.96
Ethnicity and Years employed	3.79	8	.88

The results of the chi-square tests for protégés did not indicate statistically significant differences between distributions of each sample variable. Table 7 lists the variables of the calculated chi-square ( $\chi^2$ ) for mentors.

Table 7

*Demographic Variable Cross Tabulation - Mentors*

Variable Combination	$\chi^2$ Value	<i>df</i>	<i>p</i>
Gender and Ethnicity	6.92	3	.07
Gender and Age	7.17	4	.12
Gender and Years employed	5.67	6	.46
Age and Ethnicity	38.13	12	.00
Age and Years employed	53.56	24	.00
Ethnicity and Years employed	25.09	18	.12

The results of the chi-square tests for mentors indicated statistical significance for the following demographic combinations: age and ethnicity, and age and years employed. There was greater representation of Whites in the 50-59 years age category. There were also more mentors in the 40-49 age category who reported being employed for 10 to 15 years, and mentors in the 50-59 age category who reported being employed for 15 to 20 years, and 20 to 25 years.

### **Examination of Hypotheses**

Five hypotheses were tested using correlational and hierarchical regression analyses. Two of the hypotheses stated that attachment styles would be related to job satisfaction, organizational commitment, and intent to turnover. The third hypothesis stated mentoring would be related to job satisfaction, organizational commitment, and intent to turnover. Hypotheses four and five stated that attachment styles and mentoring were significant predictors of job satisfaction, organizational commitment, and intent to turnover after controlling for gender and ethnicity. Prior to testing the hypotheses, assumptions about correlational and hierarchical regression analyses techniques such as multicollinearity, linearity, and homoscedasticity were tested. Serious violations of these underlying assumptions may make inferences drawn from results of this study unreliable.

#### **Multicollinearity**

When predictor variables are so highly correlated, the standard error of the beta coefficients increase and it is difficult to obtain reliable estimates of individual regression coefficients (Cohen & Cohen, 1983; Green & Salkind, 2005; Tabachnick & Fidell, 2001). To avoid this phenomenon called multicollinearity, correlation between predictor



variables greater than .90 should be removed or combined (Hinkle et al., 2005).

Intercorrelations between predictor variables were checked and no correlation was found to be greater than .90. Correlation between mentor attachment and career support was .38 and between mentor attachment and psychosocial support was .35. Correlation between protégé attachment and career support was .54 and between protégé attachment and psychosocial support was .59.

### **Linearity**

Linearity assumes that the relationship between the independent and dependent variables is linear (Cohen & Cohen, 1983). The best way to test this assumption was an examination of bivariate scatterplots (Green, 1991) that showed the formation of relatively linear lines. So there were no violations of linearity.

### **Homoscedasticity**

Homoscedasticity assumes that the variability in scores for one variable is roughly the same at all values of the other variable. This is related to normality and when normality is not met, variables are heteroscedastic (Cohen & Cohen, 1983; Green 1991). The homoscedasticity assumption was tested with bivariate scatterplots that were examined for the shape. The scatterplot showed a generally oval shape for all predictor variables providing evidence that the variance of residual error was constant for all values of the predictor variables (Green, 1991).

### **Correlational Analysis for Testing H<sub>1</sub>**

H<sub>1</sub> stated that there would be relationships among mentor attachment styles, job satisfaction, organizational commitment, and intent to turnover. Zero-order correlational coefficients between the variables of interest were examined for meaningfulness

according to effect size standards (Cohen, 1988). Following Cohen's (1988) effect size evaluation criterion, correlational coefficients  $< \pm .28$  are small effects; medium effects range from  $\pm .28 - .49$ ; and, large effects are greater than  $\pm .49$ .

Attachment, in this study, was measured by the AAS and the ASQ. Scores from the AAS are categorical while those from the ASQ are on a continuum. AAS scores for the mentors indicated that 59.6% ( $n = 31$ ) were secure, 34.6% ( $n = 18$ ) were avoidant, and 5.7% ( $n = 3$ ) were anxious/ambivalent. The relative proportions of secure and avoidant attachment types were roughly similar with those found in previous research (e.g., Hazan & Shaver, 1990), though the anxious/ambivalent type was underrepresented. This may be a reflection of the lack of definitive distinction between the anxious and avoidant styles as reported by Bifulco, Moran, Ball, and Berzazzani (2002), and Feeney, Noller, and Callan (1994). Additionally, Stein et al. (1998) argued that only the secure - insecure dimension remains stable across attachment measurement systems. With this observation in mind, the attachment variable was made dichotomous; insecure was coded 1 and secure was coded as 2. Job satisfaction was scored by aggregating the scores on its sub-scales. Zero-order correlation revealed that secure attachment was positively and significantly correlated with job satisfaction ( $r = .35, p < .01$ ) and organizational commitment ( $r = .47, p < .01$ ). Secure attachment was negatively and significantly correlated with intent to turnover ( $r = -.36, p < .01$ ). Results suggested a medium effect size (Cohen, 1988) providing empirical support for H<sub>1</sub>. Table 8 provides detailed correlational statistics regarding the relations among mentor attachment styles, job satisfaction, organizational commitment, and intent to turnover.

Table 8

*Zero-Order Correlation Coefficients for Mentor Attachment styles (AAS), Job satisfaction, Organizational commitment, and Intent to turnover Scales*

Variables	1	2	3	4
1. Attachment	--			
2. Job Satisfaction	.35**	--		
3. Organizational Commitment	.47**	.72**	--	
4. Intent to turnover	-.36**	-.54**	-.67**	--

*Note.* \*\* $p < .01$ .  $N = 52$ .

Each of the five dimensions of attachment measured by the ASQ (Confidence in self and others, Discomfort with closeness, Relationships as secondary to achievement, Need for approval, and Preoccupation with relationships) was scored separately. The first dimension, Confidence in self and others, measures secure attachment, whereas the other four dimensions represent varieties of insecure attachment. A three-factor solution suggests that Discomfort with closeness, and Relationships as secondary to achievement combine to form the avoidant type, while Need for approval, and Preoccupation with relationships combine to form the anxious type (Feeney, Noller, & Hanrahan, 1994; Coble, Gantt, & Mallinckrodt, 1996). Zero-order correlations revealed that Confidence in self and others was positively and significantly correlated with job satisfaction ( $r = .60, p < .01$ ), while Discomfort with closeness was negatively and significantly correlated with job satisfaction ( $r = -.47, p < .01$ ). There were no significant correlations between Relationships as secondary to achievement and job satisfaction, Need for approval and job satisfaction, and Preoccupation with relationships and job satisfaction. Zero-order correlations further revealed that Confidence in self and others was positively and

significantly correlated with organizational commitment ( $r = .69, p < .01$ ), while Discomfort with closeness was negatively and significantly correlated with organizational commitment ( $r = -.53, p < .01$ ), and Preoccupation with relationships was negatively and significantly correlated with organizational commitment ( $r = -.38, p < .01$ ). There were no significant correlations between Relationships as secondary to achievement and organizational commitment, and Need for approval and organizational commitment. Finally, zero-order correlations revealed that Confidence in self and others was negatively and significantly correlated with intent to turnover ( $r = -.49, p < .01$ ), while Discomfort with closeness was positively and significantly correlated with intent to turnover ( $r = .37, p < .01$ ), and Relationships as secondary to achievement was positively and significantly correlated with intent to turnover ( $r = .31, p < .05$ ). There were no significant correlations between Need for approval and intent to turnover, and Preoccupation with relationships and intent to turnover. Results suggest a medium to strong (Cohen, 1988) relation between all the dependent variables and several dimensions of attachment, providing further support for H<sub>1</sub>. Table 9 provides detailed correlational statistics regarding the relations among the five subscales of ASQ, job satisfaction, organizational commitment, and intent to turnover.

Table 9

*Zero-Order Correlation Coefficients for Mentor Attachment (ASQ), Job satisfaction, Organizational commitment, and Intent to turnover Scales*

Variables	1	2	3	4	5	6	7	8
1. Confidence in self and others	--							
2. Discomfort with	-.84**	--						

	closeness						
3. Relationships secondary to achievement	-.47**	.69**	--				
4. Need for approval	-.49**	.62**	.39**	--			
5. Preoccupation with relationships	-.43**	.49**	.21	.61**	--		
6. Job Satisfaction	.60**	-.47**	-.25	-.15	-.26	--	
7. Organizational Commitment	.69**	-.53**	-.22	-.19	-.38**	.72**	--
8. Intent to turnover	-.49**	.38**	.31*	.08	.23	-.54**	-.67**

---

*Note.* \* $p < .05$ ; \*\* $p < .01$ .  $N = 52$ .

In summary, results indicated that mentor attachment styles, job satisfaction, organizational commitment, and intent to turnover were all significantly related. Thus, the research evidence supports  $H_1$ .

### **Correlational Analysis for Testing $H_2$**

$H_2$  stated that there would be relationships among protégé attachment styles, job satisfaction, organizational commitment, and intent to turnover. Zero-order correlational coefficients between the variables of interest were examined for meaningfulness according to effect size standards (Cohen, 1998). AAS scores for the protégés indicated that 58% ( $n = 29$ ) were secure, 38% ( $n = 19$ ) were avoidant, and 4% ( $n = 2$ ) were anxious/ambivalent. Similar to the mentors, relative proportions of secure and avoidant attachment types among the protégés were roughly consistent with those found in

previous research (e.g., Hazan & Shaver, 1990), and in this case too, the anxious/ambivalent type was underrepresented. As with the mentors, the attachment variable was made dichotomous; secure was coded 1 and insecure was coded as 2. Job satisfaction was scored by aggregating the scores on its sub-scales. Zero-order correlations revealed that secure attachment was positively and significantly correlated with job satisfaction ( $r = .70, p < .01$ ), and organizational commitment ( $r = .72, p < .01$ ). Secure attachment was negatively and significantly correlated with intent to turnover ( $r = -.50, p < .01$ ). Results suggested a large effect size (Cohen, 1988) providing empirical support for H<sub>2</sub>. Table 10 provides detailed correlational statistics regarding the relations among protégé attachment styles, job satisfaction, organizational commitment, and intent to turnover.

Table 10

*Zero-Order Correlation Coefficients for Protégé Attachment styles (AAS), Job satisfaction, Organizational commitment, and Intent to turnover Scales*

Variables	1	2	3	4
1. Attachment	--			
2. Job Satisfaction	.70**	--		
3. Organizational	.72**	.80**	--	

Commitment

4. Intent to turnover	-.50**	-.74**	-.80**	--
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*Note.* \*\* $p < .01$ .  $N = 50$ .

Each of the five dimensions of attachment as measured by ASQ (Confidence in self and others, Discomfort with closeness, Relationships as secondary to achievement, Need for approval, and Preoccupation with relationships) was scored separately. The first dimension, Confidence in self and others, measures secure attachment, whereas the other four dimensions represent varieties of insecure attachment. A three-factor solution suggests that Discomfort with closeness, and Relationships as secondary to achievement combine to form the avoidant type, while Need for approval, and Preoccupation with relationships combine to form the anxious type (Feeney, Noller, & Hanrahan, 1994; Coble, Gantt, & Mallinckrodt, 1996). Zero-order correlations revealed that Confidence in self and others was positively and significantly correlated with job satisfaction ( $r = .79, p < .01$ ), while Discomfort with closeness was negatively and significantly correlated with job satisfaction ( $r = -.78, p < .01$ ), Relationships as secondary was negatively and significantly correlated with job satisfaction ( $r = -.71, p < .01$ ), Need for approval was negatively and significantly correlated with job satisfaction ( $r = -.48, p < .01$ ), and Preoccupation with relationships was negatively and significantly correlated with job satisfaction ( $r = -.56, p < .01$ ). Zero-order correlations further revealed that Confidence in self and others was positively and significantly correlated with organizational commitment ( $r = .77, p < .01$ ), while Discomfort with closeness was negatively and significantly correlated with organizational commitment ( $r = -.77, p < .01$ ), Relationships

as secondary to achievement was negatively and significantly correlated with organizational commitment ( $r = -.65, p < .01$ ), Need for approval was negatively and significantly correlated with organizational commitment ( $r = -.55, p < .01$ ), and Preoccupation with relationships was negatively and significantly correlated with organizational commitment ( $r = -.54, p < .01$ ). Finally, zero-order correlations revealed that Confidence in self and others was negatively and significantly correlated with intent to turnover ( $r = -.59, p < .01$ ) while Discomfort with closeness was positively and significantly correlated with intent to turnover ( $r = .61, p < .01$ ), Relationships as secondary to achievement was positively and significantly correlated with intent to turnover ( $r = .51, p < .01$ ), Need for approval was positively and significantly correlated with intent to turnover ( $r = .43, p < .01$ ), and Preoccupation with relationships was positively and significantly correlated with intent to turnover ( $r = .42, p < .01$ ). Results suggest a medium to strong (Cohen, 1988) relation between all the dependent variables and several dimensions of attachment, providing further support for H<sub>2</sub>. Table 11 provides detailed correlational statistics regarding the relations among the five subscales of ASQ, job satisfaction, organizational commitment, and intent to turnover.

Table 11

*Zero-Order Correlation Coefficients for Protégé Attachment (ASQ), Job satisfaction, Organizational commitment, and Intent to turnover Scales*

Variables	1	2	3	4	5	6	7	8
1. Confidence in self and others	--							



2. Discomfort with closeness	-.86**	--						
3. Relationships secondary to achievement	-.76**	.86**	--					
4. Need for approval	-.69**	.71**	.61**	--				
5. Preoccupation with relationships	-.71**	.76**	.69**	.84**	--			
6. Job Satisfaction	.79**	-.78**	-.71**	-.48**	-.56**	--		
7. Organizational Commitment	.77**	-.77**	-.65**	-.55**	-.54**	.80**	--	
8. Intent to turnover	-.59**	.61**	.51**	.43**	.42**	-.74**	-.80**	--

---

*Note.* \*\* $p < .01$ .  $N = 50$ .

In summary, results indicated that protégé attachment styles, job satisfaction, organizational commitment, and intent to turnover were all significantly related. Thus, the research evidence supports H<sub>2</sub>.

### **Correlational Analysis for Testing H<sub>3</sub>**

H<sub>3</sub> stated that there would be relations among mentoring (i.e., degree of career and psychosocial support from mentor), protégé job satisfaction, organizational commitment, and intent to turnover. Career support and psychosocial support were measured by the respective subscales of the Mentoring Functions Scale (Noe, 1988a). Zero-order correlational coefficients between the variables of interest were examined for meaningfulness according to effect size standards (Cohen, 1998). Zero-order correlations revealed that career support was positively and significantly correlated with protégé job

satisfaction ( $r = .57, p < .01$ ) and psychosocial support was positively and significantly correlated with protégé job satisfaction ( $r = .62, p < .01$ ). Zero-order correlations further revealed that career support was positively and significantly correlated with protégé organizational commitment ( $r = .60, p < .01$ ) and psychosocial support was positively and significantly correlated with protégé organizational commitment ( $r = .58, p < .01$ ). Finally, zero-order correlations revealed that career support was negatively and significantly correlated with protégé intent to turnover ( $r = -.32, p < .05$ ) and psychosocial support was negatively and significantly correlated with protégé intent to turnover ( $r = -.29, p < .05$ ). Results suggest a strong (Cohen, 1988) relation between protégé job satisfaction and mentoring, protégé organizational commitment and mentoring, and medium relation between protégé intent to turnover and mentoring. Table 12 provides detailed correlational statistics regarding the relations among the subscales of the Mentoring Functions Scale, protégé job satisfaction, protégé organizational commitment, and protégé intent to turnover.

Table 12

*Zero-Order Correlation Coefficients for Mentoring Functions Scale, Job satisfaction, Organizational commitment, and Intent to turnover Scales*

Variables	1	2	3	4	5
1. Career support	--				
2. Psychosocial support	.81**	--			
3. Job Satisfaction	.57**	.62**	--		
4. Organizational Commitment	.60**	.58**	.80**	--	
5. Intent to turnover	-.32*	-.29*	-.74**	-.80**	--

*Note.* \* $p < .05$ ; \*\* $p < .01$ .  $N = 50$ .

In summary, results indicated that mentoring (i.e., degree of career and psychosocial support from mentor), protégé job satisfaction, protégé organizational commitment, and protégé intent to turnover were all significantly related. Thus, the research evidence supports H<sub>3</sub>.

#### **Hierarchical Regression Analyses for H<sub>4</sub>**

Hierarchical regression analyses were performed to test H<sub>4</sub> that stated after controlling for gender, and ethnicity, mentor attachment styles and mentoring (i.e., degree of career and psychosocial support provided to protégé) significantly predict each of the outcome variables - job satisfaction, organizational commitment, and intent to turnover. The first outcome variable examined was job satisfaction. Guided by theory and empirical research, variables were loaded into the regression equation in steps (Cohen & Cohen, 1983). Gender and ethnicity were loaded as variables in the first step to serve as statistical controls. Mentors' attachment style as measured by the AAS (Hazan & Shaver, 1990) was loaded into the second step. Mentoring (career support and psychosocial support) provided by mentor was loaded into the third step. Standardized beta weights ( $\beta$ ) and cumulative  $R^2$  were computed. Results of hierarchical regression analysis on job satisfaction are provided in Table 13.

Table 13

*Summary Hierarchical Regression Analysis with Gender, Ethnicity, Attachment Style (AAS), and Mentoring Predicting Mentor Job Satisfaction*

Variable	Job Satisfaction			
	$\beta$	R	R <sup>2</sup>	Sig F Change
Step 1				
Gender	-.20			
Ethnicity	-.10			
Block		.20	.04	.365
Step 2				
Attachment style	.36**			
Block		.41	.17	.010
Step 3				
Psychosocial mentoring	.34*			
Career mentoring	.25			
Block		.65	.43	.000
Total adjusted R <sup>2</sup>			.36	

Note. \* $p < .05$ ; \*\* $p < .01$ .

Supporting H<sub>4</sub>, each of the predictor variables predicted incremental variance in job satisfaction after statistical control for the influences of the demographic variables. The demographic variables (gender and ethnicity), entered as a block in the first step in the regression, did not reach statistical significance. In the second step of the analysis, the attachment style variable was a significant positive and unique predictor of job satisfaction,  $R^2 = .17$ ,  $p < .05$ ,  $F(3,48) = 3.16$ . Further, in the third step of the regression, mentoring, specifically psychosocial mentoring ( $\beta = .34$ ,  $p < .05$ ) made a unique statistically positive contribution to predicting job satisfaction,  $R^2 = .43$ ,  $p < .001$ ,  $F(5,46) = 6.8$ . Overall, the regression model explained 36.0% of the variance in job satisfaction (large effect size; Cohen, 1988). To evaluate possible multicollinearity effects, the variance inflation factor (VIF) and the tolerance were examined. Each VIF value was less

than 2.57, providing no evidence of multicollinearity. VIF values more than 10 and tolerance values approaching 0 are considered as indicating multicollinearity (Green, 1991). Results from the analysis provide partial support to the hypothesis because career support did not contribute significantly to the model. Thus, using attachment scores from the AAS, results from the analysis suggest that mentors with secure attachment styles and providing higher levels of psychosocial mentoring to their protégés are more likely to be satisfied with their jobs.

H<sub>4</sub> was also tested by taking scores from the ASQ for the attachment variable, in contrast to the aforementioned attachment style variable (Hazan & Shaver, 1990). Gender and ethnicity were loaded as variables in the first step to serve as statistical controls. Mentor attachment as measured by the ASQ was loaded into the second step. Mentoring (career support and psychosocial support) provided by mentor was loaded into the third step. Results of hierarchical regression analysis on job satisfaction are provided in Table 14.

Table 14

*Summary Hierarchical Regression Analysis with Gender, Ethnicity, Attachment (ASQ),*

*and Mentoring Predicting Mentor Job Satisfaction*

<i>Variable</i>	<i>Job Satisfaction</i>			
	$\beta$	<i>R</i>	$R^2$	Sig <i>F</i> Change
Step 1				
Gender	-.20			
Ethnicity	-.10			
Block		.20	.04	.365
Step 2				
Confidence in self and others	.60**			
Discomfort with closeness	-.08			
Relationships as secondary to achievement	-.05			
Need for approval	.29*			
Preoccupation with relationships	-.13			
Block		.66	.44	.000
Step 3				
Psychosocial mentoring	.26			
Career mentoring	.21			
Block		.75	.56	.006
Total adjusted $R^2$			.47	

*Note.* \* $p < .05$ ; \*\* $p < .01$ .

The demographic variables (gender and ethnicity), entered as a block in the first step in the regression, did not reach statistical significance. In the second step of the analysis, attachment was a significant positive and unique predictor of job satisfaction,  $R^2 = .44$ ,  $p < .001$ ,  $F(7,44) = 5.02$ . Specifically, Confidence in self and others ( $\beta = .60$ ,  $p < .01$ ) and Need for Approval ( $\beta = .29$ ,  $p < .05$ ) made unique statistically positive contributions to predicting job satisfaction. Further, in the third step of the regression, mentoring made a unique statistically positive contribution to predicting job satisfaction. However, neither of the beta weights associated with either of the mentoring variables was statistically significant by themselves, suggesting a possible suppressor effect (Cohen & Cohen, 1983). Overall, the regression model explained 47.0% of the variance in job satisfaction (large effect size; Cohen, 1988). To evaluate possible multicollinearity effects, the variance inflation factor (VIF) was examined. Each VIF value was less than

2.57, providing no evidence of multicollinearity. Values more than 10 are considered as indicating multicollinearity (Green, 1991). Using attachment scores from the ASQ, results from the analysis suggest that mentors with high levels of confidence in themselves and higher levels of need for approval from others, and providing higher levels of mentoring are likely to be more satisfied with their jobs.

The second outcome variable examined was organizational commitment. Gender and ethnicity were loaded as variables in the first step to serve as statistical controls. Mentor attachment style as measured by the AAS was loaded into the second step. Mentoring (career support and psychosocial support) provided by mentor was loaded into the third step. Results of hierarchical regression analysis on organizational commitment are provided in Table 15.

Table 15

*Summary Hierarchical Regression Analysis with Gender, Ethnicity, Attachment Style (AAS), and Mentoring Predicting Mentor Organizational Commitment*

<i>Variable</i>	<i>Organizational Commitment</i>			
	$\beta$	<i>R</i>	$R^2$	Sig <i>F</i> Change
Step 1				
Gender	-.22			
Ethnicity	.09			
Block		.25	.06	.193

Step 2				
Attachment style	.50***			
Block		.56	.31	.000
Step 3				
Psychosocial mentoring	.42*			
Career mentoring	-.02			
Block		.68	.47	.003
Total adjusted $R^2$			.41	

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*Note.* \* $p < .05$ ; \*\*\* $p < .001$

Supporting H<sub>4</sub>, each of the predictor variables predicted incremental variance in organizational commitment after statistical control for the influences of the demographic variables. The demographic variables (gender and ethnicity), entered as a block in the first step in the regression, did not reach statistical significance. In the second step of the analysis, the attachment style variable was a significant positive and unique predictor of organizational commitment,  $R^2 = .31$ ,  $p < .001$ ,  $F(3,48) = 7.23$ . Further, in the third step of the regression, mentoring, specifically psychosocial mentoring ( $\beta = .42$ ,  $p < .05$ ) made unique statistically positive contribution to predict organizational commitment,  $R^2 = .47$ ,  $p < .001$ ,  $F(5,46) = 8.02$ . Overall, the regression model explained 40.0% of the variance in organizational commitment (large effect size; Cohen, 1988). To evaluate possible multicollinearity effects, the variance inflation factor (VIF) and the tolerance were examined. Each VIF value was less than 2.57, providing no evidence of multicollinearity. VIF values more than 10 and tolerance values approaching 0 are considered as indicating multicollinearity (Green, 1991). Results from the analysis provide partial support to the hypothesis because career support did not contribute to the model. Using attachment scores from the AAS, results from the analysis suggest that mentors with secure attachment styles and providing higher levels of psychosocial mentoring to their protégés are likely to have more organizational commitment.



H<sub>4</sub> was also tested by taking scores from the ASQ for the attachment variable. Gender and ethnicity were loaded as variables in the first step to serve as statistical controls. Mentor attachment as measured by the ASQ was loaded into the second step. Mentoring (career support and psychosocial support) provided by mentor were loaded into the third step. Results of hierarchical regression analysis on organizational commitment are provided in Table 16.

Table 16

*Summary Hierarchical Regression Analysis with Gender, Ethnicity, Attachment (ASQ), and Mentoring Predicting Mentor Organizational Commitment*

<i>Variable</i>	<i>Organizational Commitment</i>			
	$\beta$	<i>R</i>	<i>R</i> <sup>2</sup>	Sig <i>F</i> Change
Step 1				
Gender	-.22			
Ethnicity	.09			
Block		.25	.06	.193
Step 2				
Confidence in self and others	.74***			
Discomfort with closeness	.01			
Relationships as secondary to achievement	-.02			
Need for approval	.29*			
Preoccupation with relationships	-.26*			

Block		.79	.62	.000
Step 3				
Psychosocial mentoring	.33*			
Career mentoring	-.05			
Block		.82	.67	.040
Total adjusted $R^2$			.60	

*Note.* \*  $p < .05$ ; \*\*\*  $p < .001$ .

The demographic variables (gender and ethnicity), entered as a block in the first step in the regression, did not reach statistical significance. In the second step of the analysis, attachment was a significant positive and unique predictor of organizational commitment,  $R^2 = .62$ ,  $p < .001$ ,  $F(7,44) = 10.08$ . Specifically, Confidence in self and others ( $\beta = .74$ ,  $p < .05$ ), and Need for Approval ( $\beta = .29$ ,  $p < .05$ ) made unique statistically positive contributions to predicting organizational commitment. Preoccupation with relationships ( $\beta = -.26$ ,  $p < .05$ ) made a unique statistically negative contribution to predict organizational commitment. Further, in the third step of the regression, mentoring, specifically psychosocial mentoring ( $\beta = .33$ ,  $p < .05$ ) made a unique statistically positive contribution to predict organizational commitment. In the third step,  $R^2 = .67$ ,  $p < .001$ ,  $F(9,42) = 9.50$ . Overall, the regression model explained 60.0% of the variance in organizational commitment (large effect size; Cohen, 1988). To evaluate possible multicollinearity effects, the variance inflation factor (VIF) was examined. Each VIF value was less than 7.01, providing no evidence of multicollinearity. Values more than 10 are considered as indicating multicollinearity (Green, 1991). Using attachment scores from the ASQ, results from the analysis suggest that mentors with high levels of confidence in themselves and others, high levels of need for approval from others, low levels of being preoccupied with relationships, and providing higher levels of psychosocial mentoring are likely to have more organizational commitment.

The third outcome variable examined was intent to turnover. Gender and ethnicity were loaded as variables in the first step to serve as statistical controls. Mentor attachment style as measured by the AAS was loaded into the second step. Mentoring (career support and psychosocial support) provided by mentor were loaded into the third step. Results of hierarchical regression analysis on intent to turnover are provided in Table 17.

Table 17

*Summary Hierarchical Regression Analysis with Gender, Ethnicity, Attachment Style (AAS), and Mentoring Predicting Mentor Intent to Turnover*

<i>Variable</i>	<i>Intent to Turnover</i>			
	$\beta$	<i>R</i>	<i>R</i> <sup>2</sup>	Sig <i>F</i> Change
Step 1				
Gender	.12			
Ethnicity	.02			
Block		.12	.02	.672
Step 2				
Attachment style	-.37**			
Block		.39	.15	.009
Step 3				
Psychosocial mentoring	-.53**			
Career mentoring	.52			
Block		.53	.28	.024
Total adjusted <i>R</i> <sup>2</sup>			.20	

*Note.* \*\**p* < .01.

Supporting H<sub>4</sub>, each of the predictor variables predicted incremental variance in intent to turnover after statistical control for the influences of the demographic variables.

The demographic variables (gender and ethnicity), entered as a block in the first step in the regression, did not reach statistical significance. In the second step of the analysis, the attachment style variable was a significant negative and unique predictor of intent to turnover,  $R^2 = .15$ ,  $p < .05$ ,  $F(3, 48) = 2.78$ . Further, in the third step of the regression, mentoring, specifically psychosocial mentoring ( $\beta = -.53$ ,  $p < .05$ ) made a unique statistically negative contribution to predict intent to turnover,  $R^2 = .28$ ,  $p < .01$ ,  $F(5, 46) = 3.49$ . Overall, the regression model explained 19.7% of the variance in intent to turnover (medium effect size; Cohen, 1988). To evaluate possible multicollinearity effects, the variance inflation factor (VIF) and the tolerance were examined. Each VIF value was less than 2.57, providing no evidence of multicollinearity. Results from the analysis provide partial support to the hypothesis. Using attachment scores from the AAS, results from the analysis suggest that mentors with secure attachment styles and providing higher levels of psychosocial mentoring to their protégés are likely to have less intent to turnover.

H<sub>4</sub> was also tested by taking scores from the ASQ for the attachment variable. Gender and ethnicity were loaded as variables in the first step to serve as statistical controls. Mentor attachment as measured by the ASQ was loaded into the second step. Mentoring (career support and psychosocial support) provided by mentor were loaded into the third step. Results of hierarchical regression analysis on intent to turnover are provided in Table 18.

Table 18

*Summary Hierarchical Regression Analysis with Gender, Ethnicity, Attachment (ASQ), and Mentoring Predicting Mentor Intent to Turnover*

<i>Variable</i>	<i>Intent to Turnover</i>			
	$\beta$	<i>R</i>	$R^2$	Sig <i>F</i> Change
Step 1				
Gender	.12			
Ethnicity	.02			
Block		.12	.02	.672
Step 2				
Confidence in self and others	-			
	.61**			
Discomfort with closeness	-.24			
Relationships as secondary to achievement	.32			
Need for approval	-.30			
Preoccupation with relationships	.20			
Block		.60	.35	.002
Step 3				
Psychosocial mentoring	-.34			
Career mentoring	-.52			
Block		.68	.46	.028
Total adjusted $R^2$			.34	

*Note.* \*\* $p < .01$

The demographic variables (gender and ethnicity), entered as a block in the first step in the regression, did not reach statistical significance. In the second step of the

analysis, attachment was a significant negative and unique predictor of intent to turnover,  $R^2 = .35, p < .01, F(7, 44) = 3.44$ . Specifically, Confidence in self and others ( $\beta = -.61, p < .01$ ) made a unique statistically negative contribution to predicting intent to turnover. Further, in the third step of the regression, mentoring made a unique statistically negative contribution to predicting intent to turnover,  $R^2 = .46, p < .01, F(9, 42) = 3.90$ . Neither mentoring function variable was a unique predictor by itself; rather, the block of variables significantly predicted the dependent variable, suggesting a suppressor variable effect (Cohen & Cohen, 1983). Overall, the regression model explained 34.0% of the variance in intent to turnover (large effect size; Cohen, 1988). To evaluate possible multicollinearity effects, the variance inflation factor (VIF) was examined. Each VIF value was less than 7.01, providing no evidence of multicollinearity. Values more than 10 are considered as indicating multicollinearity (Green, 1991). Using attachment scores from the ASQ, results from the analysis suggest that mentors with high levels of confidence in themselves and others, and providing higher levels of mentoring are likely to have less intent to turnover.

### **Hierarchical Regression Analyses for H<sub>5</sub>**

Hierarchical regression analyses were performed to test H<sub>5</sub> that stated after controlling for gender, and ethnicity, protégé attachment styles and mentoring (i.e., degree of career and psychosocial support received by protégé) significantly predict each of the outcome variables - job satisfaction, organizational commitment, and intent to turnover. The first outcome variable examined was job satisfaction. Guided by theory and empirical research, variables were loaded into the regression equation by steps (Cohen &

Cohen, 1983). Gender and ethnicity were loaded as variables in the first step to serve as statistical controls. Protégé attachment style as measured by the AAS was loaded into the second step. Mentoring (career support and psychosocial support) received by protégé were loaded into the third step. Standardized beta weights ( $\beta$ ) and cumulative  $R^2$  were computed. Results of hierarchical regression analysis on job satisfaction are provided in Table 19.

Table 19

*Summary Hierarchical Regression Analysis with Gender, Ethnicity, Attachment Style (AAS), and Mentoring Predicting Protégé Job Satisfaction*

<i>Variable</i>	<i>Job Satisfaction</i>			
	$\beta$	<i>R</i>	$R^2$	Sig <i>F</i> Change
Step 1				
Gender	-.002			
Ethnicity	-.11			
Block		.11	.01	.744
Step 2				
Attachment style	.75***			
Block		.74	.55	.000
Step 3				
Psychosocial mentoring	.30*			
Career mentoring	.09			
Block		.78	.65	.040
Total adjusted $R^2$			.56	

*Note.* \* $p < .05$ ; \*\*\* $p < .001$ .

Supporting H<sub>5</sub>, each of the predictor variables predicted incremental variance in job satisfaction after statistical control for the influences of the demographic variables. The demographic variables (gender and ethnicity), entered as a block in the first step in the regression, did not reach statistical significance. In the second step of the analysis, the attachment style variable was a significant positive and unique predictor of job satisfaction,  $R^2 = .55$ ,  $p < .001$ ,  $F(3,46) = 18.87$ . Further, in the third step of the

regression, mentoring, specifically psychosocial mentoring ( $\beta = .30, p < .05$ ) made a unique statistically positive contribution to predict job satisfaction,  $R^2 = .65, p < .001, F(5,44) = 13.94$ . Overall, the regression model explained 56.0% of the variance in protégé job satisfaction (large effect size; Cohen, 1988). Each VIF value was less than 3.25, providing no evidence of multicollinearity. VIF values more than 10 and tolerance values approaching 0 are considered as indicating multicollinearity (Green, 1991). Using attachment scores from the AAS, results from the analysis suggest that protégés with secure attachment styles receiving higher level of psychosocial mentoring are likely to be more satisfied with their jobs.

H<sub>5</sub> was also tested by taking scores from the ASQ for the attachment variable. Gender and ethnicity were loaded as variables in the first step to serve as statistical controls. Protégé attachment as measured by the ASQ was loaded into the second step. Mentoring (career support and psychosocial support) received by protégé were loaded into the third step. Results of hierarchical regression analysis on job satisfaction are provided in Table 20.



Table 20

*Summary Hierarchical Regression Analysis with Gender, Ethnicity, Attachment (ASQ), and Mentoring Predicting Protégé Job Satisfaction*

<i>Variable</i>	<i>Job Satisfaction</i>			
	$\beta$	<i>R</i>	<i>R</i> <sup>2</sup>	Sig <i>F</i> Change
Step 1				
Gender	-.002			
Ethnicity	-.11			
Block		.11	.01	.744
Step 2				
Confidence in self and others	.60***			
Discomfort with closeness	-.43*			
Relationships as secondary to achievement	-.04			
Need for approval	.26			
Preoccupation with relationships	-.05			
Block		.87	.76	.000
Step 3				
Psychosocial mentoring	.18			
Career mentoring	.04			
Block		.89	.79	.150
Total adjusted <i>R</i> <sup>2</sup>			.73	

*Note.* \* $p < .05$ .; \*\*\* $p < .001$ .

The demographic variables (gender and ethnicity), entered as a block in the first step in the regression, did not reach statistical significance. In the second step of the analysis, attachment was a significant positive and unique predictor of job satisfaction,  $R^2 = .76$ ,  $p < .001$ ,  $F(7, 42) = 19.35$ . Specifically, Confidence in self and others made unique statistically strong positive contribution ( $\beta = .60$ ,  $p < .001$ ), and Discomfort with closeness ( $\beta = -.43$ ,  $p < .05$ ) made unique statistically negative contribution to predict job satisfaction. Further, in the third step of the regression, mentoring, did not make a statistically positive contribution to predict job satisfaction,  $R^2 = .79$ ,  $p < .001$ ,  $F(9, 40) = 16.20$ . Overall, the regression model explained 73.0% of the variance in job satisfaction

(large effect size; Cohen, 1988). Each VIF value was less than 4.45, providing no evidence of multicollinearity. Values more than 10 are considered as indicating multicollinearity (Green, 1991). Using attachment scores from the ASQ, results from the analysis suggest that protégés' with high levels of Confidence in self and others and low levels of Discomfort with closeness are likely to be more satisfied with their jobs.

The second outcome variable examined was organizational commitment. Gender and ethnicity were loaded as variables in the first step to serve as statistical controls. Protégé attachment style as measured by the AAS was loaded into the second step. Mentoring (career support and psychosocial support) received by protégé were loaded into the third step. Results of hierarchical regression analysis on organizational commitment are provided in Table 21.

Table 21

*Summary Hierarchical Regression Analysis with Gender, Ethnicity, Attachment Style (AAS), and Mentoring Predicting Protégé Organizational Commitment*

<i>Variable</i>	<i>Organizational Commitment</i>			
	$\beta$	<i>R</i>	<i>R</i> <sup>2</sup>	Sig <i>F</i> Change
Step 1				
Gender	-.06			
Ethnicity	-.03			
Block		.07	.006	.869
Step 2				
Attachment style	.75***			
Block		.74	.55	.000
Step 3				
Psychosocial mentoring	.10			
Career mentoring	.18			
Block		.77	.59	.110
Total adjusted <i>R</i> <sup>2</sup>			.54	

*Note.* \*\*\*  $p < .001$ .

H<sub>5</sub> was not supported when attachment was measured using the AAS, in that each of the predictor variables did not predict incremental variance in organizational commitment after statistical control for the influences of the demographic variables. The demographic variables (gender and ethnicity), entered as a block in the first step in the regression, did not reach statistical significance. In the second step of the analysis, the attachment style variable was a significant positive and unique predictor of organizational commitment,  $R^2 = .55$ ,  $p < .001$ ,  $F(3, 46) = 18.45$ . Further, in the third step of the regression, mentoring, did not make a statistically positive contribution to predict job satisfaction,  $R^2 = .59$ ,  $p < .001$ ,  $F(5, 44) = 12.63$ . Overall, the regression model explained 54.0% of the variance in organizational commitment (large effect size; Cohen, 1988). Each VIF value was less than 3.25, providing no evidence of multicollinearity. VIF values more than 10 and tolerance values approaching 0 are considered as indicating multicollinearity (Green, 1991). Using attachment scores from the AAS, results from the analysis suggest that protégés' attachment styles alone best predict their organizational commitment. Protégés with secure attachment styles are likely to have more

organizational commitment.

H<sub>5</sub> was also tested by taking scores from the ASQ for the attachment variable. Gender and ethnicity were loaded as variables in the first step to serve as statistical controls. Protégé attachment as measured by the ASQ was loaded into the second step. Mentoring (career support and psychosocial support) received by protégé were loaded into the third step. Results of hierarchical regression analysis on organizational commitment are provided in Table 22.

Table 22

*Summary Hierarchical Regression Analysis with Gender, Ethnicity, Attachment (ASQ), and Mentoring Predicting Protégé Organizational Commitment*

<i>Variable</i>	<i>Organizational Commitment</i>			
	$\beta$	<i>R</i>	<i>R</i> <sup>2</sup>	Sig <i>F</i> Change
Step 1				
Gender	-.06			
Ethnicity	-.03			
Block		.07	.006	.869

Step 2				
Confidence in self and others	.49**			
Discomfort with closeness	-.57**			
Relationships as secondary to achievement	.10			
Need for approval	-.07			
Preoccupation with relationships	.22			
Block		.83	.69	.000
Step 3				
Psychosocial mentoring	.06			
Career mentoring	.23			
Block		.84	.71	.230
Total adjusted $R^2$			.64	

*Note.* \*\*  $p < .01$ .

The demographic variables (gender and ethnicity), entered as a block in the first step in the regression, did not reach statistical significance. In the second step of the analysis, attachment was a significant positive and unique predictor of organizational commitment,  $R^2 = .69, p < .001, F(7,42) = 13.07$ . Specifically, Confidence in self and others ( $\beta = .49, p < .01$ ) made unique statistically positive contribution to predict organizational commitment. Discomfort with closeness ( $\beta = -.57, p < .01$ ) made unique statistically negative contribution to predict organizational commitment. Further, in the third step of the regression, mentoring, did not make a statistically positive contribution to predict organizational commitment,  $R^2 = .71, p < .001, F(9,40) = 10.77$ . Overall, the regression model explained 64.2% of the variance in organizational commitment (large effect size; Cohen, 1988). Each VIF value was less than 7.04, providing no evidence of multicollinearity. Values more than 10 are considered as indicating multicollinearity (Green, 1991). Using attachment scores from the ASQ, results from the analysis suggest that protégés' with high levels of Confidence in self and others and low levels of Discomfort with closeness are likely to have more organizational commitment.

The third outcome variable examined was intent to turnover. Gender and ethnicity

were loaded as variables in the first step to serve as statistical controls. Protégé attachment style as measured by the AAS was loaded into the second step. Mentoring (career support and psychosocial support) received by protégé were loaded into the third step. Results of hierarchical regression analysis on intent to turnover are provided in Table 23.

Table 23

*Summary Hierarchical Regression Analysis with Gender, Ethnicity, Attachment Style (AAS), and Mentoring Predicting Protégé Intent to Turnover*

<i>Variable</i>	<i>Intent to Turnover</i>			
	$\beta$	<i>R</i>	<i>R</i> <sup>2</sup>	Sig <i>F</i> Change
Step 1				
Gender	.01			
Ethnicity	.23			
Block		.24	.06	.262
Step 2				
Attachment style	-.58***			
Block		.60	.37	.000
Step 3				
Psychosocial mentoring	-.07			
Career mentoring	-.05			
Block		.60	.37	.952
Total adjusted <i>R</i> <sup>2</sup>			.29	

*Note.* \*\*\*  $p < .001$ .

H<sub>5</sub> was not supported when attachment was measured using the AAS, in that each of the predictor variables did not predict incremental variance in the dependent variable after statistical control for the influences of the demographic variables. The demographic variables (gender and ethnicity), entered as a block in the first step in the regression, did not reach statistical significance. In the second step of the analysis, the attachment style variable was a significant negative and unique predictor of intent to turnover,  $R^2 = .58$ ,  $p < .001$ ,  $F(3,46) = 8.81$ . Further, in the third step of the regression, mentoring, did not make a statistical contribution to predict intent to turnover,  $R^2 = .37$ ,  $p < .01$ ,  $F(5,44) = 5.09$ . Overall, the regression model explained 29% of the variance in intent to turnover (large effect size; Cohen, 1988). Each VIF value was less than 3.25, providing no evidence of multicollinearity. VIF values more than 10 and tolerance values approaching 0 are considered as indicating multicollinearity (Green, 1991). Using attachment scores from the AAS, results from the analysis suggest that protégés' attachment styles alone best predict their intent to turnover. Protégés with secure attachment styles are likely to have lesser intention to turnover.

H<sub>5</sub> was also tested by taking scores from the ASQ for the attachment variable. Gender and ethnicity were loaded as variables in the first step to serve as statistical controls. Protégé attachment as measured by the ASQ was loaded into the second step. Mentoring (career support and psychosocial support) received by protégé were loaded into the third step. Results of hierarchical regression analysis on intent to turnover are provided in Table 24.

Table 24

*Summary Hierarchical Regression Analysis with Gender, Ethnicity, Attachment (ASQ), and Mentoring Predicting Protégé Intent to Turnover*

<i>Variable</i>	<i>Intent to Turnover</i>			
	$\beta$	<i>R</i>	$R^2$	Sig <i>F</i> Change
Step 1				
Gender	.01			
Ethnicity	.23			
Block		.12	.02	.672
Step 2				
Confidence in self and others	-.35			
Discomfort with closeness	.54*			
Relationships as secondary to achievement	-.12			
Need for approval	.03			
Preoccupation with relationships	-.12			
Block		.71	.51	.000
Step 3				
Psychosocial mentoring	-.41			
Career mentoring	-.19			
Block		.73	.54	.290
Total adjusted $R^2$			.43	

*Note.* \* $p < .05$



The demographic variables (gender and ethnicity), entered as a block in the first step in the regression, did not reach statistical significance. In the second step of the analysis, attachment was a significant negative and unique predictor of intent to turnover,  $R^2 = .51$ ,  $p < .001$ ,  $F(7,42) = 6.14$ . Specifically, Discomfort with closeness ( $\beta = .54$ ,  $p < .05$ ) made unique statistically positive contribution to predict intent to turnover. Further, in the third step of the regression, mentoring, did not make a statistical contribution to predict intent to turnover,  $R^2 = .54$ ,  $p < .001$ ,  $F(9,40) = 5.12$ . Overall, the regression model explained 43.0% of the variance in intent to turnover (large effect size; Cohen, 1988). Each VIF value was less than 7.01, providing no evidence of multicollinearity. Values more than 10 are considered as indicating multicollinearity (Green, 1991). Using attachment scores from the ASQ, results from the analysis suggest that protégés' with high levels of Discomfort with closeness are likely to have more intention to turnover.

In summary,  $H_1$  and  $H_2$  were supported as the independent variable attachment showed evidence of statistically significant correlations with each of the outcome variables job satisfaction, organizational commitment, and intent to turnover.  $H_3$  was also supported as the independent variable mentoring showed evidence of statistically significant correlations with each of the outcome variables job satisfaction, organizational commitment, and intent to turnover.  $H_4$  was supported with attachment and mentoring, more often, psychosocial mentoring predicting unique variance in mentor job satisfaction, organizational commitment, and intent to turnover.  $H_5$  was mostly not supported. Mentoring did not contribute uniquely in the variances of the dependent variables. Only in the case of job satisfaction, there was a contribution of psychosocial mentoring in the overall model.

### **Analysis of Responses from Open-Ended Questions**

Responses to the three open-ended questions were downloaded into Excel.

Responses were coded by looking at the patterns or commonly occurring themes. About 50% ( $n = 26$ ) of mentors responded to the open-ended questions. The first question was “What is your overall feeling about the effectiveness of participating in this mentoring program?” Responses ranged from being brief in length, for example, “good”, to elaborate ones where good feelings of being able to help junior faculty, especially from another department, seemed to be a predominant theme. There seemed to be a longing for the need of more time to be really involved as a mentor, as well as general feelings of enjoyment, and satisfaction in being able to be a mentor, and contribute to the success of protégés. Some responses indicated that they had been protégés in the program at one time, and some also seemed to be mentoring more than one protégé. Mentors described the program from being “too unstructured” to being “effective.” Overall, mentors seemed to feel empathy for the stresses that junior faculty were under and wished they could do more to help them. The second question was “What are the areas where you benefitted most from your protégé?” Most mentors cited satisfaction in being able to provide social and career support, learning from their protégés from another discipline/department perspective, as well as developing a “keener sense of empathy” by “seeing the campus through the eyes of someone junior.” The third question was “What are some of the biggest challenges you have faced in the mentoring relationship?” The predominant response theme was the lack of time to devote to the relationship, followed by difficulty in finding common areas because protégé belonged to a different department. Difficult attitude and resistance of protégés were also a theme of some of the responses. As a

biggest challenge, some mentors cited their concern about the enormous stresses their protégés were under to obtain tenure. Overall, mentors seemed to care for the success of their protégés, felt a sense of pride and satisfaction in their achievements, and wished they had more time to devote to the relationships.

About 30% ( $n = 15$ ) of the protégés responded to the open-ended questions. The first question was “What is your overall feeling about the effectiveness of participating in this mentoring program?” Almost all rated the program well, citing how much valuable guidance they received from their mentors for the tenure process, and navigate their way through the university as brand new junior faculty. Some, however, cited lack of time and lack of monetary incentive for mentors as barriers to the effectiveness of the program. The second question was “What are the areas where you benefitted most from your mentor?” Responses encompassed both the psychosocial and the career support aspects of mentoring. Some cited the trust, friendship, and help they received from their mentors in navigating through difficult personal situations, and advice they received regarding the tenure process as well as maintaining a work-life balance. Others referred to collaborative professional activities like presenting, writing, and teaching. The third question was “What are some of the biggest challenges you have faced in the mentoring relationship?” The predominant theme in the responses was lack of time and busy schedules contributing to less interaction than desirable. Some protégés referred to their mentors as difficult people, or cited their “own reluctance to burden others.” Some seemed to lack rapport and trust with their mentors and were hesitant to discuss personal issues with them in the fear that such things will be “divulged to the department chair.” Overall, protégés seemed to benefit from the mentoring program, and wished they and their

mentors had more time to devote to the relationships.

The quantitative results supporting mentoring as a predictor of mentor job satisfaction, after controlling for demographics and attachment, converged with the responses from the mentors on the open-ended questions. Mentors' sense of high job satisfaction in being able to provide psychosocial support to their protégés was evident in the analyses testing hypothesis 4, as well as in the responses to the question "What are the areas where you benefitted most from your protégé?" Responses from the mentors on the same question also showed that providing career support to protégés gave them a sense of satisfaction. However, career support did not indicate any significant contribution to predicting mentors' job satisfaction when testing hypothesis 4. Thus, this was a divergence between the quantitative and the qualitative results and demonstrates the utility of using a combination of data types in exploratory research such as this study. Moreover, mentors' own learning from their protégés as revealed in the open-ended responses is a finding that was not measured with the quantitative questions. Consequently, future research might be designed to include measurement of mentor learning in the research design. Further, an overall sense of caring for protégés and feeling a sense of pride and satisfaction at their accomplishments seemed to converge with the findings from hypothesis 4, particularly where the psychosocial support provided by the mentors contributed to predicting their job satisfaction. Still, the qualitative responses did not refer to their organizational commitment or intent to turnover.

Even though the quantitative results from hypothesis 5 did not support receiving mentoring as a predictor of protégé satisfaction, commitment, and turnover intent, after controlling for demographics and attachment, the qualitative results do support parts of

the hypothesis. In hypothesis 5, the only instance when mentoring contributed to predicting protégés' job satisfaction was when attachment was measured through the AAS, but not through the ASQ. Accordingly, that particular quantitative result and the qualitative results coincide. Protégés in their open-ended responses clearly indicated the receipt of psychosocial support in the form of trust, friendship, advice, and help from their mentors, and the same result was clearly evident in the quantitative analysis too. That was also the only instance in the entire analyses where measuring through the AAS and the ASQ yielded somewhat different results. A possible reason for mentoring not contributing towards the overall model could be that with 50% of the protégés being at the beginning of their mentoring relationships, and with a modest sample size ( $n = 50$ ), it is possible that the mentoring they received had not yet begun to have as much impact on their job satisfaction, commitment, and turnover intent. Collecting data from these protégés after a period of time may yield different results.

### **Summary**

Results of this study partially support the hypotheses proposed in this study. For mentors and protégés, the variables attachment and mentoring were significantly associated with each of the outcome variables job satisfaction, organizational commitment, and intent to turnover. Furthermore, in the case of mentors, after controlling for gender and ethnicity, attachment and mentoring specifically psychosocial mentoring predicted unique variance in job satisfaction, organizational commitment, and intent to turnover. For protégés, mentoring overall, did not predict unique variance in the outcome variables except for a contribution in the case of job satisfaction. Chapter 5 discusses the results and implications of these findings for research, and practice.

## **CHAPTER V**

### **DISCUSSION**

The purpose of this chapter is to reconcile the study's findings with the extant research and scholarly literature on attachment and mentoring, and draw conclusions for future mentoring research and practices that may improve job satisfaction, organizational commitment and reduce intent to turnover. Chapter 5 begins with a brief summary of the study, followed by a discussion of results. Implications for research and practice are suggested. The chapter concludes with the limitations of the study.

#### **Summary of the Study**

The effectiveness of mentoring relationships in outcomes at work remains one of the most captivating areas of mentoring theory, research and practice (Judge & Kammeyer-Mueller, 2008). Mentoring is defined as a dyadic relationship where psychosocial support (role modeling, acceptance and confirmation, counseling, and friendship) and career support (sponsorship, coaching, protection, providing exposure, visibility, and challenging assignments) are the functions provided by the mentor to the protégé, and the mentor receives career and personal benefit from the experience as well (Kram, 1996). Protégés benefit from positive outcomes such as personal development

(Fagenson, 1989; Kammeyer-Mueller & Marchese, 2006; Larose, Tarabulsky & Cyrenne, 2005; Wanberg, Kammeyer-Mueller & Marchese, 2006), career and job satisfaction, job commitment, enhanced job performance, and career progress (Bahniuk, Dobos, & Hill, 1990; Laband & Lentz, 1995; Walsh & Borkowski, 1999). Mentors also experience favorable outcomes such as leadership, generativity (Barnett, 1984), and a sense of worth and self-esteem (Dalton, 1989, Dalton & Thompson, 1986). This study specifically focused on formal mentoring programs designed for university faculty, because, in comparison to corporate entities, relatively few universities have formal mentoring programs for faculty (De Janasz & Sullivan, 2004). Job satisfaction, organizational commitment, and intent to turnover were chosen as outcome variables for this study because universities incur costs associated with faculty turnover and recruitment of new hires. Job satisfaction and organizational commitment are positively associated with faculty mentoring (Bland, Center, Finstad, Risbey, & Staples, 2005; Steiner, Curtis, Lanphear, Vu, & Main, 2004), while intent to turnover is negatively associated (Lu, Lin, Wu, Hsieh, & Chang, 2002; Stallworth, 2003).

In response to the benefits of mentoring, organizations increasingly turn towards human resource researchers and practitioners to develop and support strategies that facilitate effective mentoring programs (Hegstad & Wentling, 2004); however, there remains a surprising shortage of research in the academic literature that looks at mentoring as a close interpersonal developmental relationship (Scandura & Pellegrini, 2004). Though various demographic and psychological factors related to the initiation and nurturance of mentoring relationships has been examined, a look at mentoring outcomes in work settings through the lens of attachment theory has not been investigated. Because

one's attachment style defines one's ability to form and manage close relationships (Hazan & Shaver, 1987, 1990, 1994), attachment theory contributes to the understanding of socio-emotional functioning (Reio et al., 2009).

The purpose of this study was to examine the relationships among attachment styles mentoring, job satisfaction, organizational commitment, and intent to turnover in formal faculty mentoring programs. Five research hypotheses were tested to examine these relationships:

*H<sub>1</sub>*: Mentor attachment styles are related to their job satisfaction, organizational commitment, and intent to turnover.

*H<sub>2</sub>*: Protégé attachment styles are related to their job satisfaction, organizational commitment, and intent to turnover.

*H<sub>3</sub>*: Mentoring (i.e., degree of career and psychosocial support from mentor) is related to protégé job satisfaction, organizational commitment, and intent to turnover.

*H<sub>4</sub>*: After controlling for gender, and ethnicity, mentor attachment styles and mentoring (i.e., degree of career and psychosocial support provided to protégé) significantly predict job satisfaction, organizational commitment, and intent to turnover.

*H<sub>5</sub>*: After controlling for gender, and ethnicity, protégé attachment styles and mentoring (i.e., degree of career and psychosocial support from mentor) significantly predict job satisfaction, organizational commitment, and intent to turnover.

A survey battery of instruments was used to investigate the relation among the variables of interest. Existing literature was used to provide a foundation for the study, and examine the hypotheses. Results suggested that job satisfaction, organizational



commitment, and intent to turnover were all significantly related to attachment style and mentoring. Moreover, for faculty mentors, secure attachment and mentoring (psychosocial support) were found to be unique positive predictors of job satisfaction, organizational commitment, and negative predictors of intent to turnover. Secure attachment was found to be a unique predictor of faculty protégés' job satisfaction, organizational commitment, and negative predictors of intent to turnover.

### **Discussion of the Results**

The following section discusses the results of each hypothesis tested by placing them in the context of attachment research and mentoring research. Results of this study suggested that there were statistically significant and meaningful relations to explore among the variables of interest. In this section, the first two hypotheses are discussed together because they examined the same relationships in two different groups – mentors and protégés. Hypothesis 3 is discussed separately. This is followed by a joint discussion of hypotheses 4 and 5 because they also examined the same predictive model in two different groups – mentors and protégés.

#### **Hypotheses 1 and 2**

The first hypothesis stated that there would be a relation between mentor attachment styles and their job satisfaction, organizational commitment, and intent to turnover. Results from the correlational analysis indicated there was a significant positive relation between mentor attachment styles, and job satisfaction. Results also showed that there was a significant positive relation between faculty mentor attachment styles, and organizational commitment. Lastly, results indicated a significant negative relation between faculty mentor attachment styles, and intent to turnover. Findings show support

for  $H_1$  and thus, the null hypothesis was rejected.

The second hypothesis stated that there would be a relation between protégé attachment styles and their job satisfaction, organizational commitment, and intent to turnover. Results from the correlational analysis indicated there was a significant positive relation between faculty protégé attachment styles, and job satisfaction. Results also showed that there was a significant positive relation between faculty protégé attachment styles, and organizational commitment. Lastly, results indicated a significant negative relation between faculty protégé attachment styles, and intent to turnover. Findings show support for  $H_2$  and thus, the null hypothesis was rejected.

The following sections discuss the results of mentor and protégé attachment styles and their relation with job satisfaction, followed by organizational commitment, and intent to turnover.

### **Job satisfaction.**

The present study found that faculty mentors and faculty protégés with secure attachment were more likely to experience a high degree of job satisfaction. Because attachment styles are more relevant within the context of close relationships than in other domains (Hazan & Shaver, 1994), Summer and Knight (2001) hypothesized and found that securely attached individuals who have positive experiences in their close relationships experience the same positivity in the work domain. The results of the first hypothesis are consistent with Hazan and Shaver's (1990) pioneering research on attachment and work behaviors where secure respondents reported higher overall job satisfaction, felt that they were valuable workers, and were confident that co-workers evaluated them highly. Other prior studies (Krausz, Bizman, & Braslavsky, 2001; Sumer

& Knight, 2001; Toepfer, 1996) also suggest similar findings. Moreover, van Eecke (2007) linked secure attachment style to lower career thought dysfunction that was found to be related to higher levels of job satisfaction (Judge & Locke, 1993). The present study found that faculty mentors and faculty protégés with insecure attachment were likely to be less satisfied with their jobs. This finding is also consistent with previous research where avoidant adults were significantly less satisfied with interpersonal activities during work, particularly interacting with co-workers (Hardy & Barkham, 1994; Hazan & Shaver, 1990; Sumer & Knight, 2001). Measurement of attachment through the ASQ in the present study revealed that Discomfort with Closeness, in particular, both for faculty mentors and faculty protégés was negatively related with job satisfaction.

#### **Organizational commitment.**

The present study found that faculty mentors and faculty protégés with secure attachment were more likely to be committed towards their organizations. Those with insecure attachment were more likely to have lower levels of organizational commitment. Measurement of attachment through the ASQ in the present study revealed that higher scores on the Discomfort with Closeness dimension in particular, for faculty mentors and faculty protégés were negatively related with organizational commitment. This finding is supported in previous research on attachment and work behaviors. Avoidant adults' lower use of shared conflict resolution abilities was related to lower levels of perspective-taking and lower social self-efficacy than secure adults (Corcoran & Mallinckrodt, 2000; Kummel, 1998). This is particularly significant in work behaviors because use of collaborative conflict resolution style is associated with higher organizational commitment (Trudel, 2009). The present study also found that higher scores on the

Preoccupation with Relationships dimension were negatively related to organizational commitment, for both faculty mentors and faculty protégés. This finding, however, is in contrast to McMahon's (2007) study where anxious-ambivalent individuals were committed to their organizations out of a perceived sense of need. This may be because anxious individuals have been found to experience stable yet unsatisfying personal relationships (Feeney, 1994, 2002).

### **Intent to turnover.**

The present study found that faculty mentors and faculty protégés with secure attachment were more likely to stay with their organizations and have less intentions of leaving. Faculty mentors and faculty protégés with insecure attachment were likely to have stronger intentions to leave the organization. Measurement of faculty mentor and faculty protégé attachment through the ASQ in the present study revealed that those scoring higher on the Discomfort with Closeness, and Relationships as Secondary to Achievement dimensions had higher levels of intent to turnover. For faculty protégés in particular, higher scores on the Need for approval, and the Preoccupation with Relationships dimensions also had positive relationship with intent to turnover. These findings are supported in Richards and Schat's (2011) research where anxiety and avoidance in attachment styles positively predicted turnover intentions. However, at the same time, the present study's findings did not seem consistent with a previous study where anxious/ambivalent attachment styles were found unrelated to voluntary turnover (Van Vianen, Feij, Krausz, & Taris, 2003). It needs to be noted that the latter study measured actual turnover and not just turnover intentions.

### **Hypothesis 3**

The third hypothesis stated that there would be a relation between mentoring in terms of the degree of career support and psychosocial support received by faculty protégés and their job satisfaction, organizational commitment, and intent to turnover. Results from the correlational analysis showed that protégés perceiving higher degree of career support and psychosocial support had higher levels of job satisfaction and organizational commitment, and less intentions of leaving the organization. Findings show support for  $H_3$  and thus, the null hypothesis was rejected. These findings are consistent with those of several researchers in the past who provided evidence that the higher the level of job satisfaction (as a result of being mentored), the more likely that the person would be committed to the organization and have lower levels of intent to quit (Aremu & Adeyoku, 2003; Baugh & Scandura, 1999; Donovan, Brown, & Mowen, 2004; Hezlett & Gibson, 2005; Joiner, Bartram, & Garreffa, 2004; Mitchell, Holtom, Lee, Sablinski, & Erez, 2001). Specifically in the area of faculty mentoring research, the findings of the present study are supported in several studies where junior faculty as protégés reported increased levels of job satisfaction and productivity, and greater retention intentions as compared to non-mentored faculty (Benson, Morahan, Sachdeva, & Richman, 2002; Bland, Center, Finstad, Risbey, & Staples, 2005; Lu, Lin, Wu, Hsieh, & Chang, 2002; Pololi, Knight, Dennis, & Frankel, 2002; Steiner, Curtis, Lanphear, Vu, & Main, 2004; Wingard, Garman, & Reznik, 2004).

#### **Hypotheses 4 and 5**

The fourth hypothesis stated that after controlling for gender, and ethnicity, faculty mentor attachment styles and mentoring (i.e., degree of career and psychosocial support provided to protégé) significantly predict each of the outcome variables - job

satisfaction, organizational commitment, and intent to turnover. The first regression model examined job satisfaction. Results showed that that attachment style of faculty mentors and the mentoring they provided uniquely predicted their job satisfaction. The second regression model examined organizational commitment. Results showed that attachment style of faculty mentors and the mentoring they provided uniquely predicted their organizational commitment. The final regression model examined intent to turnover. Results showed that that attachment style of faculty mentors and the mentoring they provided uniquely predicted their intent to turnover.

The fifth hypothesis stated that after controlling for gender, and ethnicity, faculty protégé attachment styles and mentoring (i.e., degree of career and psychosocial support received by protégé) significantly predict each of the outcome variables - job satisfaction, organizational commitment, and intent to turnover. The first regression model examined job satisfaction. Results showed that attachment style of faculty protégés as measured by the AAS (Hazan & Shaver, 1990) and the mentoring they received uniquely predicted their job satisfaction. When attachment of faculty protégés was measured by ASQ (Feeney, Noller & Hanrahan, 1994), mentoring received did not contribute to the overall model predicting job satisfaction. This was the only instance in the entire analysis where results obtained from the two attachment measures did not converge. The second regression model examined organizational commitment. Results showed that only attachment style of faculty protégés uniquely predicted their organizational commitment, and mentoring received did not contribute to the overall model predicting organizational commitment. The final regression model examined intent to turnover. Results showed that only attachment style of faculty protégés uniquely predicted their intent to turnover,

and mentoring received did not contribute to the overall model predicting intent to turnover. However, correlational evidence from hypothesis 3 provides preliminary support to the idea that mentoring is linked to higher organizational commitment and lower turnover intent.

The following sections discuss the results of the regression models individually starting with job satisfaction, followed by organizational commitment, and intent to turnover.

### **Job satisfaction.**

Results from the present study indicated that faculty mentors with secure attachment styles and providing higher levels of psychosocial support to their faculty protégés are more likely to be satisfied with their jobs. Using attachment scores from the ASQ, results further suggest that faculty mentors with high levels of confidence in themselves and others, higher levels of need for approval from others, and providing higher levels of mentoring support are likely to be more satisfied with their jobs. Mentoring is known to produce favorable job satisfaction outcomes for mentors in terms of job satisfaction (Lentz & Allen, 2008), leadership, generativity (Barnett, 1984; Burke, 1984), and a sense of worth and self-esteem (Dalton, 1989, Dalton & Thompson, 1986). However, this study is one of the first empirical studies to examine attachment styles together with mentoring in the prediction of mentors' job satisfaction.

Results from the present study also showed that faculty protégés with secure attachment styles, and receiving higher level of psychosocial mentoring are likely to be more satisfied with their jobs. This study is one of the first to examine attachment styles

together with mentoring in the prediction of protégés' job satisfaction. However, this particular aspect of the aforementioned finding regarding the positive role of mentoring in job satisfaction converges with prior research where protégés reported personal development, career and job satisfaction (Fagenson, 1989; Kammeyer-Mueller & Marchese, 2006; Larose, Tarabulsky & Cyrenne, 2005; Wanberg, Kammeyer-Mueller & Marchese, 2006). In contrast, using attachment scores from the ASQ, results of the present study suggest that attachment itself predicts job satisfaction. Protégés' with high levels of Confidence in self and others and low levels of Discomfort with closeness are likely to be more satisfied with their jobs. Mentoring did not contribute to the overall model predicting job satisfaction. A possible reason for mentoring not contributing towards the overall model could be that with 50% of the protégés at the beginning of their mentoring relationships, and the sample size being of modest size ( $N= 50$ ), it is possible that the mentoring they received had not yet begun to have as much impact on their job satisfaction.

#### **Organizational commitment.**

Organizational commitment involves an employee's loyalty to the organization, and willingness to exert effort on the behalf of the organization (Bateman & Strasser, 1984). The present study found that faculty mentors with secure attachment styles and providing higher levels of psychosocial mentoring to their protégés are likely to be more committed towards their organization. Using attachment scores from the ASQ, results also suggest that faculty mentors with high levels of confidence in themselves and others, high levels of need for approval from others, low levels of being preoccupied with relationships, and providing higher levels of psychosocial mentoring are likely to feel



more commitment towards their organizations. This study is one of the first to examine attachment styles in conjunction with mentoring in the prediction of mentors' organizational commitment. Still, prior research on organizational commitment and mentoring in itself has reported a positive relationship between mentoring provided by mentors and their organizational commitment (Lentz & Allen, 2008; Waters, 2004). The findings of the present study also provide further support to Levinson's (1978) report that mentoring met a deep psychological need of individuals in mid-life to contribute to others in a positive way, that may make them feel more committed to the organization and the quality of its members (Orpen, 1997).

The results of the present study found that in the overall protégé model, only faculty protégé attachment contributed to organizational commitment. Faculty protégés' secure attachment styles uniquely predicted organizational commitment. Using attachment scores from the ASQ, results from the analysis suggest that faculty protégés' with high levels of Confidence in self and others and low levels of Discomfort with closeness are likely to have more organizational commitment. Even though mentoring research has demonstrated evidence of positive relationship between organizational commitment and mentoring received by protégés (Aremu & Adeyoju, 2003; Orpen, 1997; Ragins & Cotton, 1999; Stallworth, 2003; Waters, 2004), this study is one of the first to examine attachment styles in conjunction with mentoring in the prediction of protégés' organizational commitment. A possible reason for mentoring not contributing towards the overall model could be because 50% of the protégés were at the beginning of their mentoring relationships, the sample size was modest ( $n = 50$ ), so it is plausible that the mentoring they received had not yet begun to have as much impact on their

organizational commitment.

**Intent to turnover.**

Meyer and Allen (1991) stated that organizational commitment has “implications for the decision to continue membership in the organization” (p. 67). The present study indicated that faculty mentors with secure attachment styles and providing higher levels of psychosocial mentoring to their faculty protégés are likely to continue belonging to the organization and have lesser intent to leave. Using attachment scores from the ASQ, results also suggested that mentors with high levels of confidence in themselves and others, and providing higher levels of mentoring support are likely to have less intent to turnover. This study is one of the first to examine attachment styles in conjunction with mentoring in the prediction of mentors’ intent to turnover. However, prior research has demonstrated evidence that high quality mentoring in itself has significant relationship with mentors’ intent to turnover (Ghosh, 2009). The findings also lend support to Lentz and Allen’s (2008) study that examined the moderating role of mentorship in the relationship between mentors’ career plateauing and their job satisfaction, organizational commitment, and intent to turnover.

The results of the present study found that in the overall protégé model, only faculty protégé attachment styles contribute to intent to turnover. Faculty protégés with secure attachment styles are likely to have less intention to turnover. Using attachment scores from the ASQ, results from the analysis suggest that faculty protégés’ with high levels of Discomfort with closeness are likely to have more intention to turnover. Again, this study is one of the first to examine attachment styles in conjunction with mentoring in the prediction of protégés’ intent to turnover. However, prior research has

demonstrated evidence that mentoring in itself increases the possibilities of employee retention and reduces protégés' intent to turnover (Bahniuk, Dobos, & Hill, 1990; Laband & Lentz, 1995; Walsh & Borkowski, 1999; Wilson & Elman, 1990). A possible reason for mentoring not contributing towards the overall model could be with 50% of the protégés at the beginning of their mentoring relationships, the sample size being modest ( $N = 50$ ), it is likely that the mentoring they received had not yet begun to have as much impact on their turnover intentions, similar to organizational commitment.

### **Implications for Research**

Based on the findings of the current study, there is need for future research in several areas. Because this study is the first to examine the unique combination of attachment and mentoring in relation to job satisfaction, organizational commitment, and intent to turnover, HRD researchers need to replicate this study in corporate settings with the antecedent and outcome variables examined in this study. Other areas of mentoring research, for example entrepreneurial mentoring, and student mentoring in higher education settings could also benefit by investigating the role of attachment styles in relation with respective relevant outcome variables.

Faculty mentoring programs help junior faculty to experience higher productivity, comfort, and greater sense of connection to their institutions (Pololi, Knight, Dennis, & Frankel, 2002). Thus, to generalize the findings of this study and better inform the planners of formal faculty mentoring programs, it is important to replicate this study in junior faculty mentoring programs in other universities, because none of the prior studies that examined attachment style in relation to job satisfaction (Krausz, Bizman, &

Braslavsky, 2001; Sumer & Knight, 2001; Toepfer, 1996), organization commitment (Trudel, 2009), and intent to turnover (Richards & Schat, 2011) were carried out among university faculty. Moreover, faculty mentors and their corresponding protégés in this study came from different academic disciplines and departments and this was cited by mentors as a learning opportunity for themselves. Future studies could focus on faculty mentoring where the mentor and the protégé were from the same academic discipline or department.

This study gathered data from faculty mentors and protégés independently. Future research needs to replicate this study by gathering data from faculty mentor-protégé dyads and investigate the same outcome variables. Findings from such research may provide valuable information to the matching process of formal faculty mentoring programs. Moreover, as some faculty protégés in the present study cited lack of rapport and trust with their mentors and were hesitant to discuss personal issues with them, it would be useful to find out if attachment styles of faculty mentor-protégé dyads interact with each other. Because self-disclosure is an important component of developing relationships where individuals share information about their experiences (Rocco, 2004), such findings might be supportive of Bernier, Larose and Soucy's (2005) study that indicated contrasting attachment styles of mentors and protégés interact to predict protégés' self-disclosure and comfort with proximity, and their satisfaction with mentoring.

Attachment dimensions measured through ASQ and related to the outcome variables provide uniqueness to this study. Prior studies that examined attachment styles

in relation to job satisfaction (Krausz, Bizman, & Braslavsky, 2001; Sumer & Knight, 2001; Toepfer, 1996), organization commitment (Trudel, 2009), and intent to turnover (Richards & Schat, 2011) used Hazan and Shaver's (1990) three classifications of attachment - secure, avoidant, and anxious/ambivalent or just the secure-insecure classification. This study, in addition, used the ASQ to measure the five dimensions of attachment - Confidence in self and others, Discomfort with closeness, Relationships as secondary to achievement, Need for approval, and Preoccupation with relationships. The first dimension, Confidence in self and others, measures secure attachment, whereas the other four dimensions represent varieties of insecure attachment. The findings of this study mostly converge, whether attachment was measured through the secure-insecure classification or through the attachment dimensions. Confidence in self and others as well as the secure attachment classification positively correlated with job satisfaction and organizational commitment, and negatively correlated with turnover intentions. Similarly, negative relationships identified for job satisfaction and organizational commitment to the insecure attachment classification were also found in Discomfort with closeness, Relationships as secondary to achievement, Need for approval, and Preoccupation with relationships. Thus, it will be interesting to replicate the use of the ASQ in similar studies.

Because the present study did not detect a contributing role of mentoring to the predictive model of the outcome variables for faculty protégés, the present study could be extended by examining interaction effects between attachment and mentoring to explore moderation relationships. Longitudinal mentoring research would also help better understand how, if at all, career support and psychosocial support levels change over

periods of time for people with different attachment styles, and whether that changes the levels of job satisfaction, organizational commitment, and intent to turnover. Researchers could focus on a specific group of protégés and mentors in a variety of organizational settings over a time period. Looking at mentoring as a developmental relationship (Ainsworth, 1989; Daloz, 1986; Kegan, 1982; Levinson et. al, 1978), it would be interesting, for example, to see if mentoring buffers the negative impact of attachment insecurity. That kind of research may be able to provide support to Kahn's (1996) view of caregiving relationships in organizational settings that offers a way to conceptualize secure base relationships at work. In such circumstances, where high quality mentor-protégé relationships develop, deep emotional bonds, common interests and goals also develop. These kinds of relationships referred to as relational mentoring are characterized by high levels of psychosocial support, promotion of mutual development (Ragins & Verbos, 2007) and reciprocal learning (Ghosh, 2009). Prior research has shown evidence of relational mentoring's significant relationship with mentors' intent to turnover (Ghosh, 2009), and the moderating role of mentorship in the relationship between mentors' career plateauing and their job satisfaction, organizational commitment, and intent to turnover (Lentz & Allen, 2008). Thus, exploring job satisfaction, organizational commitment, and intent to turnover for faculty mentors and faculty protégés with different attachment styles in relational mentoring relationships could be another direction of further research.

As faculty mentors in the present study cited learning from their protégés, there is scope for further research to examine learning goal orientations of faculty mentors and faculty protégés. Learning goal orientation is a stable trait that a person brings into relationships and learning goals pursued by an individual motivates behavior and

influences interpretation and responsiveness to learning opportunities (Dweck, 1986, as cited in Godshalk & Sosik, 2003). Clutterbuck (2004) reported commitment to one's own learning as one of the core mentor competencies. Protégés possessing high levels of learning goal orientation or similar learning goal orientations as their mentors received highest levels of psychosocial support. Higher levels of career development, desired and enacted managerial aspirations, and career satisfaction were also reported by such protégés when compared to mentor–protégé dyads that possessed low levels of learning goal orientation or dyads with dissimilar levels of learning goal orientation (Godshalk & Sosik, 2003). In a study of a formal mentoring program, similar results were reported in addition to the fact that high learning goal oriented mentors paired with low learning goal oriented protégés appeared likely to attempt to positively influence protégé outcomes (Egan, 2005). A conceptual model of formal mentoring was suggested by Kim (2007) with learning goal orientation as a key construct of the model. The model proposed that mentors and protégés with high learning goal orientations might offer and receive more role modeling, career development, and psychosocial support.

Scandura and Pellegrini's (2004) proposed mentoring model used attachment theory to refocus the mentoring literature on the developmental aspect of mentoring and tied it to work outcomes. They developed a typology of mentoring relationships (functional, dysfunctional, marginal, marginal-dysfunctional) based on attachment styles and then proposed that career support, psychosocial support, and role modeling provided in these types of mentoring relationships mediate several work outcomes such as job satisfaction, stress, turnover, performance, citizenship, and absenteeism. The present study's similarity with the model's antecedent and outcome variables, and its findings

may encourage researchers to test the model. Dysfunctional mentoring relationships can result in negative outcomes (Allen, Poteet, & Burroughs, 1997; Eby, McManus, Simon, & Russell, 2000; Scandura, 1998; Zey, 1984) and the role of attachment in the formation of either functional or dysfunctional or marginal-dysfunctional relationships may be a valuable new direction to explore. Though the present study found both career support and psychosocial support to positively relate to job satisfaction and organizational commitment, and negatively relate to turnover intentions, the role of psychosocial support in the overall regression models for faculty mentors could provide a direction for researchers testing Scandura and Pellegrini's (2004) model to focus on psychosocial support in functional or dysfunctional or marginal-dysfunctional relationships.

Because this study focused on a formal mentoring program, it will be worthwhile to replicate the study in informal mentoring relationships. Though mentoring research has examined job satisfaction, organizational commitment, and intent to turnover in the corporate world, both formal and informal mentoring in those settings need to be investigated with the specific combination of antecedent and outcome variables used in this study. Additionally, this study examined only subjective career outcomes. Future research could investigate relationships among attachment style, mentoring, and objective career outcomes (Dreher & Ash, 1990) such as higher compensation, promotion etc. In the area of faculty mentoring, data such as publications, research, teaching evaluations, and tenure status could be examined as objective career outcomes.

As more studies indicate the need to cultivate an employment culture that facilitates and promote mentoring, understanding faculty mentoring programs within their academic cultural contexts is critical (Zellers, Howard, & Barcic, 2008). Behavioral



researchers (Gewirtz & Pelaez-Nogueras, 1987, 1992) who explain infant behavior through a social conditioning approach believe that behaviors occur as a function of the context in which they are embedded. Similarly, developmental researchers (Kahn & Antonucci, 1980; Levitt, 2005; Lewis 1997) who articulate attachment theory with research on social networks and social support maintain that personal relationships, developed and nurtured throughout life, form the environment in which the individual develops. Thus, future research on attachment and faculty mentoring should also consider contextual variables such as academic departmental culture and university culture.

In addition to replication, research on attachment style and mentoring could be examined using causal-comparative (Hinkle et al., 2006) methods. Experimental studies could also be utilized to assess the effectiveness of formal faculty mentoring programs to enhance job satisfaction, organizational commitment, and reduce turnover intent. Such studies could focus on the variables examined in this study, or use an expanded literature base to guide the selection of control variables. If researchers were to test the utility of formal faculty mentoring programs, using pre- and post-mentoring data could be examined for significant differences. Moreover, examination of effect sizes could provide additional information about the effectiveness of formal faculty mentoring programs that can be used in faculty retention efforts. Qualitative studies might also assist in better understanding the phenomenon of attachment and mentoring. For example, where possible, researchers could conduct structured interviews (Patton, 1990) with faculty protégés and faculty mentors and interpret findings through an attachment and mentoring perspective. Such studies might provide more direct insights into the use of mentoring as a faculty retention tool. The convergence of such research methods is necessary to

increase the external validity of this research.

Though attachment styles are universal and consistent across cultures (Manning, 2003), mentoring research is still validated primarily on majority culture (Owens, Lacey, Rawls, & Holbert-Quince, 2010). Hence, further research needs to examine attachment styles in conjunction with demographic variables in mentoring functions and outcomes. As protégés from minority ethnic groups struggle to find mentors of the same ethnicity, the degree of career and psychosocial support, these protégés receive from their White mentors, especially in the form of role modeling continues to remain a major issue (Brooks & Clunis, 2007). Taking a cue from the findings of the present study related to attachment, psychosocial support and the outcome variables, mentoring research focused specifically on ethnic minority groups that studied job satisfaction, organizational commitment, and intent to turnover (Robinson & Reio, 2012; Smith, Smith, & Markham, 2000) could be further extended.

As organizations become increasingly diverse (Reio & Ghosh, 2009) and cross-cultural mentoring relationships become more prevalent (Higgins & Kram, 2001), understanding how cultural variables influence the development of mentoring relationships could be beneficial. For instance, in collectivist cultures, people are inclined to form social groups in organizations. Thus, such cultural predispositions to be pro-social may play a role in the development of informal mentoring (Crocitto, Sullivan, & Carraher, 2005). Research focused on cross-cultural mentoring that studied job satisfaction (Carraher, Sullivan, & Crocitto, 2008; Feldman & Bolino, 1997) could extend its scope to include the role of attachment styles. Organizations with diverse workforce, multinational organizations, and HRD research in foreign countries may all

reap the benefits of such research.

Even though women are projected to account for 47% of the labor force in 2016 (U.S. Bureau of Labor Statistics, 2006), lack of female mentors in most workplaces sets the stage for cross-gender mentoring relationships (Darwin, 2004; Noe, 1988b). But where women are mentored by women, protégés reported receiving greater psychosocial support from their mentors (Lane, 2004; Viers-Yaun, 2003) because women prefer a relational focus with a blending of personal and professional roles in contrast to men protégés (Johnson, 2002; Pompper & Adams, 2006). Mentoring research focused specifically on gender that studied job satisfaction, organizational commitment, and intent to turnover (Aremu & Adeyoju, 2003; Burke & McKeen, 1996; Dreher & Ash, 1990) could be further extended to examine the role of attachment styles in women's mentoring relationships.

Integrating social network research with mentoring research, Higgins and Kram (2001) proposed the concept of developmental network where diverse kinds of mentoring relationships are prevalent (e.g., hierarchical dyadic mentoring, lateral or peer mentoring, multiple mentoring) in today's organizations because of organizational restructuring, globalization, and outsourcing. Future research on social network and mentoring could take cues from the findings of the present study related to attachment, psychosocial support and the outcome variables and explore job satisfaction, organizational commitment, and turnover intent of participants with different attachment styles in different kinds of mentoring relationships.

### **Implications for Practice**

As HRD continues to influence employee development to build an improved

work environment (Kuchinke, 2002), additional insight into how formal mentoring programs can be more effective and consequently affect employee attitudes and behavior is crucial. With the field already aware of the role of attachment styles in career development (Blustein et. al., 1995; Mikulincer & Shaver, 2001; Wolfe & Betze, 2004), and work relationships (Hazan & Shaver, 1990; Caldwell, 1995; Mikulincer, Shaver, & Pereg, 2003), the present study provides an additional insight for HRD practitioners. It has significant practical implications for academe about how adult attachment styles and participation in formal mentoring programs play a role in job satisfaction, organizational commitment, and turnover intentions among university faculty.

For faculty mentors, the present study informs about the contribution of secure attachment styles and psychosocial support to job satisfaction, organizational commitment, and turnover intentions. With the majority of mentoring literature focused on perceived benefits and outcomes for the protégé (Wanberg, Welsh, & Hezlett, 2003), the findings of this study provide HRD practitioners unique information on the developmental perspective of mentors as a result of the mentoring experience. Based on this study's findings, academic departments in universities could select faculty with secure attachment styles as mentors, who have strong propensity to derive maximum job satisfaction, and feel more committed to the university. On the same note, academic departments in universities in their efforts to nurture, promote, and retain promising junior faculty, could go beyond selecting mentors based on professional characteristics alone. Formal faculty mentoring program planners could broaden their mentor selection process by not just focusing on professional experience, position held, seniority, and demographic considerations. Junior faculty with secure attachment styles could be selected as protégés to augment their job satisfaction levels, and

their commitment to the university, so that they have lesser inclinations about leaving. The present study's findings about the positive relationship of psychosocial support to job satisfaction and organizational commitment and its negative contribution to turnover intentions inform planners of intervention programs to develop interpersonal competencies of mentors and protégés that could improve the giving and receiving of psychosocial support, such as listening skills, providing and receiving feedback, and role modeling. Those with insecure attachment could benefit from such intervention programs as well. Academic departments could also provide faculty who are not naturally inclined to benefit from mentoring relationships with alternative developmental activities.

The present study informs faculty mentoring program planners at the institutional level that mentoring support received by protégés has a strong positive relationship with job satisfaction and organizational commitment, and a strong negative relationship with intent to turnover. Prior studies showing such evidence have mostly been in the discipline of academic medicine (Benson, Morahan, Sachdeva, & Richman, 2002; Bland, Center, Finstad, Risbey, & Staples, 2005; Lu, Lin, Wu, Hsieh, & Chang, 2002; Pololi, Knight, Dennis, & Frankel, 2002; Steiner, Curtis, Lanphear, Vu, & Main, 2004; Wingard, Garman, & Reznik, 2004). Administrators at the institutional level can now possibly use this study's findings and take steps in structuring formal faculty mentoring programs so as to move towards transforming their academic organizations to mentoring cultures.

With this being an exploratory study, HRD practitioners in non-university settings may look towards more extensive research in their respective settings before implementing any changes in their practice. Nevertheless, based on the findings of this study, these other kinds of organizations could possibly make changes in their recruitment practices as well as

in the planning of formal mentoring programs. The present study clearly shows strong positive relation between secure attachment and job satisfaction and organizational commitment. Human resource professionals may consider incorporating assessment of attachment styles in the recruitment and selection process to hire employees who may have greater propensity to be satisfied with their jobs, be committed to the organization, and have less turnover intentions.

While this study provides evidence of attachment as an individual difference to consider in the planning of mentoring programs, practitioners need to keep in mind an alternative perspective for mentoring research where the developmental role played by a mentor in a protégé's life through caring and nurturing has been highlighted in works of several developmental scholars (Ainsworth, 1989; Bloom, 1995; Daloz, 1986; Kegan, 1994; Levinson et. al, 1978; Ragins & Verbos, 2007). It could be possible that a mentor may be able to buffer a protégé's attachment insecurity, but research is still in its infancy in this area. Future research should explore this emerging area and continue to inform the HRD community so that practitioners can take better decisions on spending resources in mentor training and formal mentoring programs. Cultivating high levels of job satisfaction, organizational commitment and retaining talented employees is a work in progress in any organization. However, thinking differently about employee development and how each employee may uniquely experience a key career and personal developmental tool like mentoring, is the first step in an innovative direction.

### **Limitations of the Study**

This section identifies characteristics of this study that are limitations of this research. The first limitation is the self-report nature of the instruments that were used in

the study because of their ease of use and relatively less cost. However, this may have created the potential for common method variance to bias the results in the form of producing inflated or deflated correlations (Crampton & Wagner, 1994; Podsakoff, MacKenzie, & Podsakoff, 2003; Spector, 2006). One of the steps taken to address this potential issue was that participant anonymity was assured to the participants (Podsakoff et al., 2003). Secondly, the survey was reviewed by knowledgeable experts and a pilot study was conducted that reduced the likelihood of coverage, measurement, and nonresponse error in the collection of the data (Dillman, Smyth, & Christian, 2009).

A second limitation is the use of a non-random sample in the study, so caution should be used when generalizing the results beyond the current study. The number of participants in the mentoring program was not large enough to do any random sampling. Still the whole population was surveyed.

A third limitation is the cross-sectional and correlational nature of the study that does not allow predicting causal effects over a period of time. Correlational research methods can only ascertain relationships (Glatthorn, 1998). As this study is correlational, the research is unable to ascertain whether the various attachment styles caused the differences in career support and psychosocial support and the outcomes. Future research that includes a causal model will add to the body of knowledge.

With mentoring recognized to be contextual (Zellers, Howard, & Barcic, 2008), a fourth limitation is that the study did not control for any external variables such as the level of organizational support, and the organizational culture that might have played a role in the mentoring experiences, and the outcome variables.

Lastly, the approach taken in this study involved measurement of individual

respondents. Social desirability bias could influence responses as participants were asked to report their own thoughts and feelings about their place of work. Because the protégés were fairly new to the university, reporting potentially sensitive information about one's mentoring experience or the support and resources available at their department might have led to socially desirable responses. However, there should be very little concern about this issue because it was addressed by following the procedural steps in Dillman et al.'s (2009) Tailored Design Method.

### **Summary**

The findings of this study indicate that attachment plays an important role in job satisfaction, organizational commitment, and turnover intentions of both faculty mentors and faculty protégés. Moreover, career and psychosocial support received by faculty protégés have a positive relationship with their job satisfaction, and organizational commitment, and a negative relationship with their turnover intentions. Additionally, the current study identified that attachment and mentoring together predict organizational outcomes for faculty mentors. These findings make important contributions to the attachment literature and HRD research on mentoring. HRD professionals need to be attentive to these findings in order to design and develop successful mentoring programs that can help retain both mentors and protégés. Specifically, this study makes a valuable contribution to faculty mentoring research and practice by linking organizational outcomes of faculty mentors and faculty protégés to their attachment styles as well as mentoring. With bulk of mentoring research focused on protégé experiences and protégé outcomes, this study contributes uniquely to research on mentor experiences and mentor



outcomes. As effective mentoring can help to enhance job satisfaction and organizational commitment and retain employees, HRD practitioners and researchers should explore innovative ways to increase positive mentoring experiences.

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#### APPENDIX

*Please provide the following information as requested below. The information will remain confidential and will ONLY be used in aggregate form for statistical purposes.*

#### Section 1: Demographics

Your Gender:

- A. Male
- B. Female

Your Age:

- A. 21-29
- B. 30-39
- C. 40-49
- D. 50-59
- E. 60-69
- F. 70-79

Your Ethnicity:

- A. White
- B. African American
- C. Hispanic
- D. Asian
- E. American Indian or Alaskan Native
- F. Other

How long have you been employed in your present organization?

- A. Less than 1 yr
- B. 1-5 yrs
- C. 5-10 yrs
- D. 10-15 yrs
- E. 15-20 yrs
- F. 20-25 yrs
- G. 25-30 yrs
- H. More than 30 yrs

Section 2: Attachment

I. Hazan and Shaver's Attachment Questionnaire

Please select from one of the following three choices:

- (a) I find it relatively easy to get close to others and am comfortable depending on them and having them depend on me. I don't often worry about someone getting too close to me.
- (b) I am somewhat uncomfortable being close to others; I find it difficult to trust them completely and to allow myself to depend on them. I am nervous when anyone gets too close.
- (c) I find that others are reluctant to get as close as I would like.

II. Attachment Style Questionnaire

	Show how much you agree with each of the following items by rating them on the following scale:	1 = totally disagree	2 = strongly disagree	3 = slightly disagree	4 = slightly agree	5 = strongly agree	6 = totally agree
1.	Overall, I am a worthwhile person.						
2.	I am easier to get to know than most people.						

	Show how much you agree with each of the following items by rating them on the following scale:	1 = totally disagree	2 = strongly disagree	3 = slightly disagree	4 = slightly agree	5 = strongly agree	6 = totally agree
3.	I feel confident that people will be there for me when I need them.						
4.	I prefer to depend on myself rather than other people.						
5.	I prefer to keep to myself.						
6.	To ask for help is to admit that you're a failure.						
7.	People's worth should be judged by what they achieve.						
8.	Achieving things is more important than building relationships.						
9.	Doing your best is more important than getting on with others.						
10.	If you've got a job to do, you should do it no matter who gets hurt.						
11.	It is important to me that others like me.						
12.	It is important to me to avoid doing things that others won't like.						
13.	I find it hard to make a decision unless I know what other people think.						
14.	My relationships with						

	Show how much you agree with each of the following items by rating them on the following scale:	1 = totally disagree	2 = strongly disagree	3 = slightly disagree	4 = slightly agree	5 = strongly agree	6 = totally agree
	others are generally superficial.						
15.	Sometimes I think I am no good at all.						
16.	I find it hard to trust other people.						
17.	I find it difficult to depend on others.						
18.	I find that others are reluctant to get as close as I would like.						
19.	I find it relatively easy to get close to other people.						
20.	I find it easy to trust others.						
21.	I feel comfortable depending on other people.						
22.	I worry that others won't care about me as much as I care about them.						
23.	I worry about people getting too close.						
24.	I worry that I won't measure up to other people.						
25.	I have mixed feelings about being close to others.						
26.	While I want to get close to others, I feel uneasy about it.						

	Show how much you agree with each of the following items by rating them on the following scale:	1 = totally disagree	2 = strongly disagree	3 = slightly disagree	4 = slightly agree	5 = strongly agree	6 = totally agree
27.	I wonder why people would want to be involved with me.						
28.	It is very important to me to have a close relationship.						
29.	I worry a lot about my relationships.						
30.	I wonder how I would cope without someone to love me.						
31.	I feel confident about relating to others.						
32.	I often feel left out or alone.						
33.	I often worry that I do not really fit in with other people.						
34.	Other people have their own problems so I don't bother them with mine.						
35.	When I talk over my problems with others, I generally feel ashamed or foolish.						
36.	I am too busy with other activities to put much time into relationships.						
37.	If something is bothering me, others are generally aware and concerned.						

	Show how much you agree with each of the following items by rating them on the following scale:	1 = totally disagree	2 = strongly disagree	3 = slightly disagree	4 = slightly agree	5 = strongly agree	6 = totally agree
38.	I am confident that other people will like and respect me.						
39.	I get frustrated when others are not available when I need them.						
40.	Other people often disappoint me.						

### Section 3: Mentoring

#### Mentoring Functions Scale

	<i>If you are a protégé in this relationship, please show how much you agree with each of the following items by rating them on the following scale:</i>	1 = to a very slight extent or not at all	2 = to a slight extent	3 = to a moderate extent	4 = to a large extent	5 = to a very large extent
1.	Mentor has shared history of his/her career with you.					
2.	Mentor has encouraged you to prepare for advancement.					
3.	Mentor has encouraged me to try new ways of conducting myself in my job.					
4.	I try to imitate the work behavior of my mentor.					
5.	I agree with my mentor's attitudes and values regarding education.					
6.	I respect and admire my mentor.					



	<i>If you are a protégé in this relationship, please show much you agree with each of the following items by rating them on the following scale:</i>	1 = to a very slight extent or not at all	2 = to a slight extent	3 = to a moderate extent	4 = to a large extent	5 = to a very large extent
7.	I will try to be like my mentor when I reach a similar position in my career.					
8.	My mentor has demonstrated good listening skills in our conversations.					
9.	My mentor has discussed my questions or concerns regarding feelings of competence, commitment to advancement, relationships with peers and supervisors or work/family conflicts.					
10.	My mentor has shared personal experiences as an alternative perspective to my problems.					
11.	My mentor has encouraged me to talk openly about anxiety and fears that detract from my work.					
12.	My mentor has conveyed empathy for the concerns and feelings I have discussed with him/her.					
13.	My mentor has kept feelings and doubts shared with him/her in strict confidence.					
14.	My mentor has conveyed feelings of respect for me as an individual.					
15.	My mentor reduced unnecessary risks that could threaten the					

	<i>If you are a protégé in this relationship, please show much you agree with each of the following items by rating them on the following scale:</i>	1 = to a very slight extent or not at all	2 = to a slight extent	3 = to a moderate extent	4 = to a large extent	5 = to a very large extent
	possibility of receiving a promotion.					
16.	My mentor helped me finish assignments/tasks or meet deadlines that otherwise would have been difficult to complete.					
17.	My mentor helped me meet new colleagues.					
18.	My mentor gave me assignments that increased written and personal contact with administrators.					
19.	My mentor assigned responsibilities to me that have increased my contact with people in the department and/or college and/or university who may judge my potential for future advancement.					
20.	My mentor gave me assignments or tasks in my work that prepared me for an administrative position.					
21.	My mentor gave me assignments that presented opportunities to learn new skills.					
22.	My mentor provided me with support and feedback regarding my performance as a faculty member.					
23.	My mentor suggested specific strategies for achieving my career goals.					
24.	My mentor shared ideas					

	<i>If you are a protégé in this relationship, please show much you agree with each of the following items by rating them on the following scale:</i>	1 = to a very slight extent or not at all	2 = to a slight extent	3 = to a moderate extent	4 = to a large extent	5 = to a very large extent
	with me.					
25.	My mentor suggested specific strategies for accomplishing work objectives.					
26.	My mentor gave me feedback regarding my performance in my present job.					
27.	My mentor has invited me to join him/her for lunch.					
28.	My mentor has asked me for suggestions concerning problems he/she has encountered.					
29.	My mentor has interacted with me socially outside of work.					

	<i>If you are a mentor in this relationship, please show much you agree with each of the following items by rating them on the following scale:</i>	1 = to a very slight extent or not at all	2 = to a slight extent	3 = to a moderate extent	4 = to a large extent	5 = to a very large extent
1.	I have shared history of my career with protégé.					
2.	I have encouraged protégé to prepare for advancement.					
3.	I have encouraged protégé to try new ways of conducting himself/herself in their job.					

	<i>If you are a mentor in this relationship, please show much you agree with each of the following items by rating them on the following scale:</i>	1 = to a very slight extent or not at all	2 = to a slight extent	3 = to a moderate extent	4 = to a large extent	5 = to a very large extent
4.	Protégé tries to imitate my work behavior.					
5.	Protégé agrees with my attitudes and values regarding education.					
6.	Protégé respects and admires me.					
7.	Protégé will try to be like me when he/she reaches a similar position in their career.					
8.	My protégé has demonstrated good listening skills in our conversations.					
9.	I have discussed my protégé's questions or concerns regarding feelings of competence, commitment to advancement, relationships with peers and supervisors or work/family conflicts.					
10.	I have shared my personal experiences as an alternative perspective to protégé's problems.					
11.	I have encouraged protégé to talk openly about anxiety and fears that detract from their work.					
12.	I have conveyed empathy for the concerns and feelings my protégé has discussed with me.					
13.	I have kept feelings and doubts shared with protégé in strict					

	<i>If you are a mentor in this relationship, please show much you agree with each of the following items by rating them on the following scale:</i>	1 = to a very slight extent or not at all	2 = to a slight extent	3 = to a moderate extent	4 = to a large extent	5 = to a very large extent
	confidence.					
14.	I have conveyed feelings of respect for protégé as an individual.					
15.	I have reduced unnecessary risks that could threaten the possibility of protégé receiving a promotion.					
16.	I have helped protégé finish assignments/tasks or meet deadlines that otherwise would have been difficult to complete.					
17.	I have helped protégé meet new colleagues.					
18.	I gave protégé assignments that increased written and personal contact with administrators.					
19.	I have assigned responsibilities to protégé that have increased his/her contact with people in the department and/or college and/or university who may judge him/her potential for future advancement.					
20.	I gave protégé assignments or tasks in their work that prepare them for an administrative position.					
21.	I gave protégé assignments that present opportunities to learn new skills.					
22.	I provided protégé with					

	<i>If you are a mentor in this relationship, please show how much you agree with each of the following items by rating them on the following scale:</i>	1 = to a very slight extent or not at all	2 = to a slight extent	3 = to a moderate extent	4 = to a large extent	5 = to a very large extent
	support and feedback regarding their performance as a faculty member.					
23.	I suggested specific strategies for achieving protégé's career goals.					
24.	I shared ideas with protégé.					
25.	I suggested specific strategies to protégé for accomplishing work objectives.					
26.	I gave protégé feedback regarding their performance in their present job.					
27.	I invited protégé to join me for lunch.					
28.	I have asked protégé for suggestions concerning problems I have encountered.					
29.	I have interacted with protégé socially outside of work.					

#### Section 4: Job Satisfaction

##### Job Satisfaction Scale

	Please select the one number for each statement that comes closest to reflect your opinion about it.	1 = disagree very much	2 = disagree moderately	3 = disagree slightly	4 = agree slightly	5 = agree moderately	6 = agree very much
1.	I feel I am being paid a						

	Please select the one number for each statement that comes closest to reflect your opinion about it.	1 = disagree very much	2 = disagree moderately	3 = disagree slightly	4 = agree slightly	5 = agree moderately	6 = agree very much
	fair amount for the work I do.						
2.	There is really too little chance for promotion on my job.						
3.	My supervisor is quite competent in doing his/her work.						
4.	I am not satisfied with the benefits I receive.						
5.	When I do a good job, I receive the recognition for it that I should receive.						
6.	Many of our rules and procedures make doing a good job difficult.						
7.	I like the people I work with.						
8.	I sometimes feel my job is meaningless.						
9.	Communications seem good within this organization.						
10.	Raises are too few and far between.						
11.	Those who do well on the job stand a fair chance of being promoted.						
12.	My supervisor is unfair to me.						

	Please select the one number for each statement that comes closest to reflect your opinion about it.	1 = disagree very much	2 = disagree moderately	3 = disagree slightly	4 = agree slightly	5 = agree moderately	6 = agree very much
13.	The benefits we receive are as good as most other organizations offer.						
14.	I do not feel that the work I do is appreciated.						
15.	My efforts to do a good job are seldom blocked by red tape.						
16.	I find I have to work harder at my job because of the incompetence of people I work with.						
17.	I like doing the things I do at work.						
18.	The goals of this organization are not clear to me.						
19.	I feel unappreciated by the organization when I think about what they pay me.						
20.	People get ahead as fast here as they do in other places.						
21.	My supervisor shows too little interest in the feelings of subordinates.						
22.	The benefits package we have is equitable.						
23.	There are few rewards						



	Please select the one number for each statement that comes closest to reflect your opinion about it.	1 = disagree very much	2 = disagree moderately	3 = disagree slightly	4 = agree slightly	5 = agree moderately	6 = agree very much
	for those who work here.						
24.	I have too much to do at work.						
25.	I enjoy my co-workers.						
26.	I often feel that I do not know what is going on with the organization.						
27.	I feel a sense of pride in doing my job.						
28.	I feel satisfied with my chances for salary increases.						
29.	There are benefits we do not have which we should have.						
30.	I like my supervisor.						
31.	I have too much paperwork.						
32.	I don't feel my efforts are rewarded the way they should be.						
33.	I am satisfied with my chances for promotion.						
34.	There is too much bickering and fighting at work.						
35.	My job is enjoyable.						
36.	Work assignments are not fully explained.						

## Section 5: Organizational Commitment

### Organizational Commitment Questionnaire

Listed below are a series of statements that represent possible feelings that individuals might have about the organization for which they work. With respect to your own feelings about the particular organization for which you are now working please indicate the degree of your agreement or disagreement with each statement by checking one of the seven alternatives below:

		1= strongly disagree	2= moderately disagree	3= slightly disagree	4= neither disagree nor agree	5= slightly agree	6= moderately agree	7= strongly agree
1.	I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.							
2.	I talk up this organization to my friends as a great organization to work for.							
3.	I feel very little loyalty to this organization.							
4.	I would accept almost any type of job assignment in order to keep working for this organization.							
5.	I find that my values and the organization's values are very similar.							
6.	I am proud to tell others that I am part of this organization.							
7.	I could just as well be working for a different organization as long as the							

	type of work was similar.							
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8.	This organization really inspires the very best in me in the way of job performance.							
9.	It would take very little change in my present circumstances to cause me to leave this organization.							
10.	I am extremely glad that I chose this organization to work for over others I was considering at the time I joined.							
11.	There's not too much to be gained by sticking with this organization indefinitely.							
12.	Often, I find it difficult to agree with this organization's policies on important matters relating to its employees.							
13.	I really care about the fate of this organization.							
14.	For me this is the best of all possible organizations for which to work.							
15.	Deciding to work for this organization was a definite mistake on my part.							

Section 6: Intent to turnover

Michigan Organizational Assessment – Intent to turnover subscale

		1 = Not At All Likel y	2 = Not Likel y	3 = Some- what Not Likely	4 = Some- -what Likel y	5 = Likel y	6 = Quite Likel y	7 = Extre- mely Likely
1	How likely is it that you will actively look for a new job in the next year?							
2	I will probably look for a new job next year							
3	I often think about quitting.							

Please answer the following questions:

1.	What is your overall feeling about the effectiveness of participating in this mentoring program?
2.	If you are protégé in this relationship, what are the areas where you benefitted most from your mentor? If you are mentor in this relationship, what are the areas where you benefitted most from your protégé?
3.	If you are protégé in this relationship, what are the some of the biggest challenges you have faced in the mentoring relationship? If you are mentor in this relationship, what are the some of the biggest challenges you have faced in the mentoring relationship?

## VITA

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Place of Birth	Asansol, India
1987	Bachelor of Arts, English Honors, Calcutta University, Kolkata, India
1989 - 1990	Diploma in Computer Applications, Lakhotia Computer Center, Kolkata, India
1990 - 1994	Teacher, Computer Science, St. Joseph's College, Kolkata, India
1991 - 1992	Bachelor of Education, Annamalai University, Chidambaram, India
1994 - 2000	Teacher, Computer Science, Calcutta Girls High School, Kolkata, India
2000 - 2001	Instructor, Computer Science, Manipal University, Kolkata, India
2002 - 2008	Coordinator, Academic Support Services, Florida International University, Miami
2003	Master of Science, Adult Education, Florida International University, Miami
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