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Participation in a graduate program introduces a number of both acute stressors (e.g., specific milestones such as comprehensive exams and dissertation proposals) and chronic stressors (e.g., rigorous workload, work-life balance) that have the potential to impact student marriages negatively (Brannock et al., 2000; Katz et al., 2000; Legako & Sorenson, 2000). One of the most commonly reported stressors associated with graduate study is lack of time and energy for the couple or family (Gold, 2006; Sori et al., 1996). In addition, the personal and emotional nature of counseling work can contribute to burnout, compassion fatigue, and psychological distress (Emerson & Markos, 1996; Skovholt, 2001; Stebnicki, 2007), which may impact students' marriages, their ability to navigate the training program successfully, and their clinical effectiveness. Attachment characteristics of each partner and dyadic coping strategies used by the couple may help to determine how these stressors impact the marriage. Given the ongoing stressors and high risk of burnout inherent in helping professions (O'Halloran & Linton, 2000; Skovholt, 2001; Sweeney, 2001), the development of effective dyadic coping strategies during the training program may have long-term benefits for students, their partners, and ultimately, their clients.

Therefore, the overarching purpose of this study was to examine a combination of factors that impact the marital satisfaction of counseling graduate students, and to test moderation and mediation models involving these factors. Attachment theory and the Vulnerability-Stress-Adaptation model provided complementary frameworks that guided

the design and methodology of the study. A sample of 191 married students from 23 randomly-selected CACREP-accredited counseling programs participated in an electronic survey. Instrumentation included the Relationship Assessment Scale (RAS; Hendrick, 1988), Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983), Experiences in Close Relationships – Revised (ECR-R; Fraley, Waller, & Brennan, 2000), Dyadic Coping Inventory (DCI; G. Bodenmann, personal communication, August 11, 2008), Marital Instability Index – Brief Form (MII; Booth, Johnson, & Edwards, 1983), a questionnaire addressing the division of household tasks (adapted from Erickson, 2005; Kurdek, 2007), and a demographic questionnaire.

Pearson Product Moment Correlations indicated that the relationships among the study variables existed in the expected directions. Attachment anxiety, attachment avoidance, and dyadic coping accounted for 67% of the variance in marital satisfaction, providing strong evidence that these variables are important predictors of marital satisfaction. Dyadic coping did not serve a moderating role in the relationship between perceived stress and marital satisfaction, but did partially mediate the relationships between both attachment dimensions and marital satisfaction. Master's and doctoral students did not differ significantly on any of the primary study variables. This study highlights the key roles of adult attachment characteristics and dyadic coping patterns in predicting the marital satisfaction of counseling graduate students. The findings provide direction for future research and practical implications for counselors, educators, graduate students and their partners.

PERCEIVED STRESS, ADULT ATTACHMENT, DYADIC COPING, AND MARITAL SATISFACTION OF COUNSELING GRADUATE STUDENTS

by

Kerrie N. Kardatzke

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the Faculty of The Graduate School at
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Doctor of Philosophy

Greensboro

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Approved by

_____
Committee Chair

Dedicated to Elaine Jerrils, my incredible mom, for instilling in me humanitarian values, a love of learning, a desire to make a difference… and for believing in me every step of the way.

APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of the Graduate School at The University of North Carolina at Greensboro.

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CHAPTER I

INTRODUCTION

Rationale for the Study

The numerous and profound effects of stress on individual health and functioning have been well documented for several decades (Lazarus & Folkman, 1984; Turner, Wheaton, & Lloyd, 1995). The pursuit of higher education, particularly in graduate programs, is one normative transition that has been shown to cause high levels of stress. Academic stressors, including an overwhelming workload, high volume of material to be learned, test or performance anxiety, time management struggles, and high expectations of oneself, have been reported as contributors to stress levels experienced by graduate students (Toews, Lockyer, Dobson, & Brownell, 1993). Other stressors include financial concerns, challenging coursework, and the specific demands of internship and dissertation work (Nelson, Dell'Oliver, Kock, & Buckler, 2001). Women, in particular, report increased stress and anxiety due to role strain and gender-based discrimination (Mallinckrodt & Leong, 1992; Toews et al., 1993). Graduate school presents both acute, time-limited stressors (e.g., specific milestones such as comprehensive exams and dissertation proposals) and chronic, persistent stressors (e.g., rigorous workload, work-life balance). Clearly, graduate school is an endeavor that most students experience as a time of elevated stress and demands on time and energy.

These stressors are not without consequences. Stress during graduate school has been linked consistently to decreases in physical health and psychological well-being. Higher stress levels have been associated with greater physical health concerns (Calicchia & Graham, 2006), greater number of surgeries, illnesses, and doctor visits (Nelson et al., 2001), and increased risk of illness (Toews et al., 1993). In addition to the physical consequences of stress, researchers have found that graduate student stress is associated with depression and anxiety (Hodgson & Simoni, 1995; Katz, Monnier, Libet, Shaw, & Beach, 2000; Mallinckrodt & Leong, 1992; Toews et al., 1993), somatization (Toews et al., 1993), suicidality (Hodgson & Simoni, 1995), and lower mental health-related quality of life (Calicchia & Graham, 2006). In one study of marriage and family therapy graduate students, 28% of the participants reported that they had considered dropping out of school due to the overwhelming demands of the program (Polson & Nida, 1998).

Marital Satisfaction and Graduate School

In addition to the individual consequences of stress, student relationships with others also are impacted. A major transition experienced by any member of a family requires adjustment for all members (Carter & McGoldrick, 2005). For example, Polson and Piercy (1993) found that program-related stress among graduate students had significant effects on the entire family system.

One subsystem that clearly appears to be affected is the marital dyad. Graduate student stress has been shown to have a negative effect on marital satisfaction of students and their partners (Brannock, Litten, & Smith, 2000; Gold, 2006; Katz et al., 2000; Legako & Sorenson, 2000; Sori, Wetchler, Ray, & Niedner, 1996). More specifically,

graduate students have reported specific sources of marital dissatisfaction, including lack of time and energy for the marriage and family (Gold, 2006; Legako & Sorenson, 2000; Polson & Piercy, 1993; Sori et al., 1996), changing or differing levels of personal development and philosophies of life (Brannock et al., 2000; Legako & Sorenson, 2000; Sori et al., 1996), financial strain (Gold, 2006; Legako & Sorenson, 2000), role strain (Mallinckrodt & Leong, 1992; Polson & Nida, 1998), affective communication (Brannock et al., 2000; Gold, 2006), sexual relations (Brannock et al., 2000; Gold, 2006), and difficulties with problem-solving (Gold, 2006). Graduate student couples may be at a high risk for divorce, particularly at transition points such as comprehensive exams, internship, dissertation, and graduation (Scheinkman, 1988). Collectively, these findings provide evidence that participation in graduate study introduces a number of stressors that have the potential to impact student marriages negatively.

One challenge facing any cohabiting couple is how to distribute the responsibilities of housework (Kurdek, 2007). When one partner begins graduate study, this challenge becomes even more salient, especially if that partner also is employed. This requires adjustment on the part of one or both partners and may contribute to both stress and marital conflict. Dissatisfaction with inequity in the division of household labor has been associated negatively with marital quality (Frisco & Williams, 2003; Kurdek, 2007) and marital stability (Frisco & Williams, 2003; Kurdek, 2007). Division of household labor, however, has not been studied specifically in relation to the marital satisfaction of graduate students.

Counseling Graduate Students

Previous research on graduate student stress and marital satisfaction has been conducted with samples from a variety of academic departments (Brannock et al., 2000; Legako & Sorenson, 2000; Powers, Myers, Tingle, & Powers, 2004; Sori et al., 1996). Researchers have not yet explored, however, the marital satisfaction of graduate students in counseling programs. In addition to the academic rigors of graduate study, there are several aspects of counseling training that could affect the marital satisfaction of students. Counseling students are challenged with the very personal nature of the training. As developing counselors, they are learning both the skills-based aspects of counseling (i.e., how to *do* counseling), and the relational aspects of counseling (i.e., how to *be* in authentic, therapeutic relationships with clients). This requires that a great deal of self-reflection and opportunities for personal growth be infused in the training program, which also can be very emotionally draining (McAuliffe & Eriksen, 2000). The personal and emotional nature of clinical work can contribute to burnout (Kottler, 1993), depression (Deutsch, 1985), anxiety (Emerson & Markos, 1996), compassion or empathy fatigue (Stebnicki, 2007), and drug or alcohol abuse (Emerson & Markos, 1996), all of which may create spillover stress and impact student home lives. The reverse also may be true, resulting in a cycle of professional stress impacting the marriage, and marital stress impacting the student's ability to navigate the stressors of counseling training effectively.

How counseling students cope with these stressors is an important area of inquiry that has relevance for both the personal and professional development of counseling

trainees. Given the profound effects of occupational stress, its potential to impact both counselors and their clients, and the ethical obligation to address counselor impairment, researchers and counselor educators have advocated for additional attention to the wellness and self-care of counselors and counselors-in-training (Herlihy, 1996; Stebnicki, 2007; Witmer & Young, 1996). A recent edition of the Journal of Humanistic Counseling, Education and Development (Spring, 2007) was devoted entirely to counselor wellness, reflecting the consensus among leaders in the field that counselor wellness is an important professional issue. One reason for this is the negative association between wellness and counselor impairment (Lawson, Venart, Hazler, & Kottler, 2007). Simply put, counselors who are physically and psychologically healthy are better able to provide therapeutic services and meet the needs of their clients than distressed counselors (Lawson, 2007). The ACA Code of Ethics addresses the importance of monitoring one's professional effectiveness and potential impairment in order to uphold the best interests of clients. Therefore, counselor educators are recognizing the need to provide counseling students with knowledge and skills for coping with stress, burnout, and impairment (Witmer & Young, 1996). Given the ongoing stressors and high risk of burnout inherent in helping professions (O'Halloran & Linton, 2000; Skovholt, 2001; Sweeney, 2001), the development of effective dyadic coping strategies early in the training program likely will serve counseling students and their marriages well throughout their professional careers.

Dyadic Stress and Coping

In the past two decades, there has been a marked increase of theoretical and empirical attention to stress and coping processes in couples (Bodenmann, 2005; Cohan

& Cole, 2002; Story & Bradbury, 2004). Not surprisingly, individual stress has been shown to affect marital communication, marital quality, and marital satisfaction (Conger, Rueter, & Elder, 1999; Neff & Karney, 2004; Story & Bradbury, 2004). In addition, greater stress in marriage is associated with a higher risk of divorce (Cohan & Cole, 2002; Karney, Story, & Bradbury, 2005). These findings are meaningful due to the documented links between marital quality and life satisfaction (Heller, Watson, & Ilies, 2004; Proulx, Helms, & Buehler, 2007), physical health (Proulx et al., 2007; Robles & Kiecolt-Glaser, 2003), and psychological well-being (Kamp Dush, Taylor, & Kroeger, 2008; Proulx et al., 2007). In other words, stress appears to have both a direct effect on physical and emotional health and an indirect effect on health through its impact on marital quality. Therefore, researchers are faced with the critical task of determining factors that impact the coping strategies used by couples and identifying effective strategies for managing stressful events and transitions, such as one spouse's pursuit of graduate study.

This newfound emphasis on stress and coping of couples has led to the modification and extension of existing stress and coping theories that had been applied previously only to individuals. Although there is a substantive body of literature dedicated to family stress theories (Antonovsky, 1998; Boss, 1987; Burr, 1973; Hill, 1949; Koos, 1946; McCubbin & Patterson, 1982), only recently have researchers begun to extend these theoretical frameworks to conceptualize the stress and coping processes of couples. Several researchers interested in dyadic coping (Bodenmann, 1995; Coyne & Smith, 1991; DeLongis & O'Brien, 1990) have built upon the foundation of Lazarus'

well-known model of stress and coping (Lazarus & Folkman, 1984). This model emphasizes the interaction between the person and the environment by focusing on the subjective cognitive appraisals of potentially stressful situations. The model is based on the premise that, when faced with a potential stressor, individuals make judgments about whether or not it poses a threat (primary appraisal), about the availability of resources to handle the threat (secondary appraisal), and then respond with the coping behaviors deemed appropriate. Within this model, coping strategies fall into one of two categories: problem-focused coping (attempting to change the situation itself), or emotion-focused coping (attempting to change one's own response to the situation).

Relationship researchers not only are interested in these individual stress appraisals and coping strategies, but also in dyadic stressors and coping responses of couples (Story & Bradbury, 2004). Dyadic stress results from a specific event, situation, or transition that directly or indirectly threatens both spouses and prompts coping responses from both spouses (Bodenmann, 2005). In the current study, graduate school will be examined as a contextual source of dyadic stress, because it impacts both the student and the spouse and requires some form of coping response. Dyadic coping is a joint process of responding to dyadic stress, based on the interdependence of spouses in a shared social context (Bodenmann, 2005). When spouses cope in ways that consider each other's satisfaction and well-being, the well-being of both individuals and the dyad is enhanced. Researchers have found that the use of dyadic coping is linked with marital quality, by buffering the marriage from negative effects of stress and by shaping relational appraisals of the marriage as a trusting, intimate, and supportive partnership

(Bodenmann, Pihet, & Kayser, 2006).

Vulnerability-Stress-Adaptation Model

In order to ground the current investigation of stress, coping, and marital satisfaction of counseling graduate students, a solid theoretical framework is needed. Although a number of approaches could provide theoretical insight about particular aspects of the current study, a model was sought that addresses a wider variety of factors that impact marital quality. In their seminal review of marital research, Karney and Bradbury (1995) presented the Vulnerability-Stress-Adaptation (VSA) model as a comprehensive and integrative framework for understanding changes in marital quality and marital stability. In brief, the VSA model suggests that stressful events and transitions (both acute and chronic), enduring vulnerabilities (individual characteristics brought to the marriage), and the adaptive processes used by each partner (behaviors) interact to affect marital quality and marital stability. The model considers a combination of developmental (changes in marital quality and stability over time), contextual (environmental factors), intrapersonal (personality and history effects), behavioral (adaptive processes), and cognitive (appraisals of marital quality) factors, which contributes to its value as a conceptual framework.

The VSA model allows for the integration of established theories that may help to explain the inclusion of and relationships between certain variables in the model. In the current study, attachment theory (to be discussed later in the chapter) provides a theoretical foundation that helps to explain the relationships among stress, dyadic coping, and marital satisfaction. The VSA model provides a practical, overarching framework, by

helping to place the study within a more comprehensive view of marital processes. In this study, participation in graduate school represents a stressor; attachment dimensions of anxiety and avoidance represent potential enduring vulnerabilities; the dyadic coping strategies used by the couple represent adaptive processes; and marital satisfaction represents one dimension of overall marital quality.

Several of the major assumptions of the VSA model are particularly relevant to the current study. For example, enduring vulnerabilities (in this case, attachment anxiety and attachment avoidance) affect adaptive processes (in this case, dyadic coping strategies). In other words, attachment dimensions may impact the student's ability to cope with the stressors of graduate school. A second example is that adaptive processes (in this case, dyadic coping strategies) affect marital quality (in this case, marital satisfaction). More specifically, the choice and implementation of coping strategies may impact satisfaction with the marriage. Although all paths of the VSA model will not be addressed in the current study, this model provides a useful framework for conceptualizing adult attachment, dyadic coping processes, and marital satisfaction of counseling graduate students.

Attachment Theory

In this study, attachment theory is used to explain the relationships among stress, dyadic coping strategies, and marital satisfaction within the VSA model. Attachment anxiety and avoidance may impact both marital satisfaction and the ways that students react to stressful situations. Relationship researchers have advocated for the use of attachment theory as a rich framework for understanding intimate relationships (Feeney

& Noller, 1996; Hazan & Shaver, 1987, 1994; Johnson, 2004; Rholes & Simpson, 2004). In brief, attachment theory describes the way bonds of affection are formed and broken. It highlights the importance of primary attachment figures (usually caretakers in childhood and partners in adulthood) in providing a safe haven of comfort and security, a secure base from which to explore, and a sought-after presence in times of extreme distress or need (Bowlby, 1969). Based on repeated experiences with the caregiver, an infant develops expectations about the availability and responsiveness of that caregiver, and these expectations shape what Bowlby (1973) referred to as "internal working models" (p. 238). These internal working models refer to the infant's mental representations of others (i.e., Can I depend on them if I am in need?) and the self (i.e., Am I the sort of person that others will help when I am in need?), and serve as a guide for thoughts, feelings, and behaviors in later relationships (Bowlby, 1973). These expectations of self and others form the basis of childhood attachment styles (Ainsworth, Blehar, Waters, & Wall, 1978). Internal working models and the corresponding attachment styles have been found to remain fairly consistent into adulthood, affecting the way adults view themselves and their spouses, how they experience intimate relationships, and how they respond in times of stress (Hazan & Shaver, 1987, 1994).

The three primary attachment styles are secure, avoidant, and anxious/ambivalent. Adults with a secure attachment style tend to describe their romantic relationships as happy and trusting. They are able to get emotionally close to others rather easily and tend to be comfortable giving and receiving support from their spouses. Adults with an avoidant attachment style tend to be afraid of intimacy and emotional highs and lows.

They find it difficult to trust others and are wary of getting too close. Finally, adults with anxious/ambivalent styles describe love as an obsession, and tend to experience romantic relationships characterized by emotional highs and lows, extreme jealousy, and strong desire for emotional connection (Hazan & Shaver, 1987).

In recent years, researchers have begun to measure adult attachment in terms of variance along the two dimensions of attachment anxiety (level of fear of separation and abandonment) and attachment avoidance (level of discomfort with intimacy and dependency), rather than the categorical system (Brennan et al., 1998). Discussions of adult attachment, however, still include reference to attachment styles or orientations, based on one's combined levels of anxiety and avoidance (Rholes & Simpson, 2004). In the current study, *attachment* or *attachment style* refer to the combined dimensions of attachment anxiety and attachment avoidance.

Empirical researchers have found support for the basic tenets of attachment theory. For example, a number of studies indicate that adults with a more secure attachment style report higher marital satisfaction than those with anxious or avoidant attachment styles (Butzer & Campbell, 2008; Feeney, 1999; Marchand, 2004; Meyers & Landsberger, 2002). Researchers have documented links between attachment style and marital satisfaction (Alexandrov, Cowan, & Cowan, 2005; Banse, 2004; Meyers & Landsberger, 2002), sexual satisfaction (Butzer & Campbell, 2008), conflict resolution behaviors (Marchand, 2004), and emotional control (Feeney, 1999). Additionally, Seiffge-Krenke (2006) found that how young adults appraise and cope with relationship stressors is a function of attachment style. Her results indicated that individuals with

secure working models of self and others experienced less stress in intimate relationships, used more adaptive coping strategies, and exhibited fewer symptoms of psychopathology.

Furthermore, attachment style has been explored as a factor in potentially stressful marital transition points, such as parenthood (Curran, Hazen, Jacobvitz, & Feldman, 2005; Moller, Hwang, & Wickberg, 2006). Although parenthood and graduate study are very different endeavors, they bring similar stressors to the marriage. These stressors include increased workload, the need to redefine roles, and decreased time and energy for the couple relationship. Attachment style has been found to be predictive of behaviors that maintain closeness and marital satisfaction during the transition to parenthood (Curran et al., 2005; Moller, et al., 2006). Collectively, these studies provide evidence that attachment style is an important factor in relationship maintenance and satisfaction during a period of transition. It is unknown, however, how these findings might generalize to other stressful transition points in the marriage, including times when one spouse is immersed in graduate studies.

Hazan and Shaver (1994) suggested that when the basic needs of comfort, care, and sexual gratification are met, individuals are more likely to feel satisfied with their relationships. Given the aforementioned stressors of graduate school and the likelihood that at least some of these basic relationship needs may not be fully satisfied during this time period, attachment theory provides a useful framework within which to conceptualize the marital experiences of counseling graduate students. More specifically, attachment style may impact one's cognitive appraisals about the stressors that accompany the graduate school experience. In addition, it is possible that attachment

impacts the choice of dyadic coping strategies employed by couples. For instance, securely attached spouses may be more likely to use supportive dyadic coping responses that contribute to both spouses' marital satisfaction and well-being. Given the potential relationships among these variables of interest, attachment theory and the vulnerability-stress-adaptation model will be used as complementary theoretical frameworks for the current study.

Statement of the Problem

The effect of graduate student stress on marital satisfaction has been studied within samples of medical (Katz et al., 2000; Powers et al., 2004), psychology (Legako & Sorenson, 2000), marriage and family therapy (Polson & Piercy, 1993; Sori et al., 1996), and general graduate students (Brannock et al., 2000; Gold, 2006) with results showing consistently that the stress of graduate school negatively impacts the marital dyad. No existing published studies were located, however, that explored specifically the marital satisfaction of graduate students in counseling programs. It is unknown then, whether the emotional nature of the work and the emphasis on self-reflection and personal growth has a negative or positive effect on counseling student marriages.

In addition, most of the existing research on the marital satisfaction of graduate students either has focused on master's students (Sori et al., 1996; Polson & Piercy, 1993) or doctoral students (Brannock et al., 2000; Katz et al., 2000; Legako & Sorenson, 2000; Powers et al., 2004). Only one researcher included both master's and doctoral students (Gold, 2006), and this study was not focused specifically on counseling trainees. Therefore, researchers have not addressed any potential differences in the marital

satisfaction of master's and doctoral counseling students. Because master's and doctoral programs present different types of stressors and developmental tasks, it is possible that the relationships among stress, coping, and marital satisfaction may be different between entry-level and doctoral counseling students.

Finally, adult attachment has been studied as a factor that impacts marital satisfaction (e.g., Butzer & Campbell, 2008; Feeney, 1999; Marchand, 2004; Meyers & Landsberger, 2002), but not within a population of graduate students. Due to the rigorous demands of graduate study, one of the most commonly reported stressors is lack of time and energy for the couple or family (Gold, 2006; Sori et al., 1996). Balancing roles, adjusting expectations of one another, and managing new stressors can lead spouses to feel isolated (Sori et al., 1996), pushed aside (Legako & Sorenson, 2000), or lonely and disoriented (Scheinkman, 1988). Attachment anxiety and avoidance may provide some explanation as to why graduate student stress impacts some marriages more than others.

Purpose of the Study

There are several gaps related to sampling in the existing research on marital satisfaction of graduate students. Researchers have not explored the marital satisfaction of graduate students in counseling programs. It is unknown, then, how the stressors of being a graduate student in a counselor preparation program may be related to dyadic adjustment. Researchers also have not explored marital satisfaction using samples of both master's and doctoral students, and therefore have not been able to draw comparisons between the two levels of students.

Existing research also reveals a gap in the combination of variables studied. A review of relevant literature indicates that researchers have examined the relationship between graduate student stress and marital satisfaction (e.g., Brannock et al., 2000; Gold, 2006; Legako & Sorenson, 2000), the relationship between adult attachment and marital satisfaction (e.g., Feeney, 1999; Marchand, 2004; Meyers & Landsberger, 2002), and the relationship between coping strategies and marital quality (e.g., Bodenmann et al., 2006; Graham & Conoley, 2006). Researchers to date, however, have not considered the relationships among graduate student stress, adult attachment, dyadic coping, and marital satisfaction of graduate students.

Therefore, the overarching purpose of this study was to examine factors that impact the marital satisfaction of counseling graduate students. This study filled important gaps in the literature by sampling both master's and doctoral students of accredited counseling training programs. In addition, the researcher examined the relationships among a combination of variables that had not been studied within this population, including perceived stress, adult attachment, dyadic coping, and marital satisfaction.

Research Questions

In this study, the relationships among perceived stress, attachment avoidance, attachment anxiety, dyadic coping, and marital satisfaction were examined among a sample of counseling graduate students. The specific research questions are listed below, followed by illustrations of the moderation and mediation models associated with research questions three, four, and five.

1. Are there significant mean differences between master's and doctoral students in perceived stress level, attachment anxiety, attachment avoidance, dyadic coping, and marital satisfaction?
2. What proportion of the variance in marital satisfaction can be accounted for by perceived stress, attachment anxiety, attachment avoidance, dyadic coping, division of household tasks, and satisfaction with division of tasks?
3. To what extent is the relationship between perceived stress and marital satisfaction moderated by dyadic coping?
4. To what extent is the relationship between attachment anxiety and marital satisfaction mediated by dyadic coping?
5. To what extent is the relationship between attachment avoidance and marital satisfaction mediated by dyadic coping?

In addition to examination of these research questions, follow-up analyses involving marital instability were conducted to inform future research. Although this variable was not added to the research questions, for heuristic purposes Research Question 2 was replicated with marital instability as the dependent variable.

Figure 1. Moderation Model (Research Question 3)

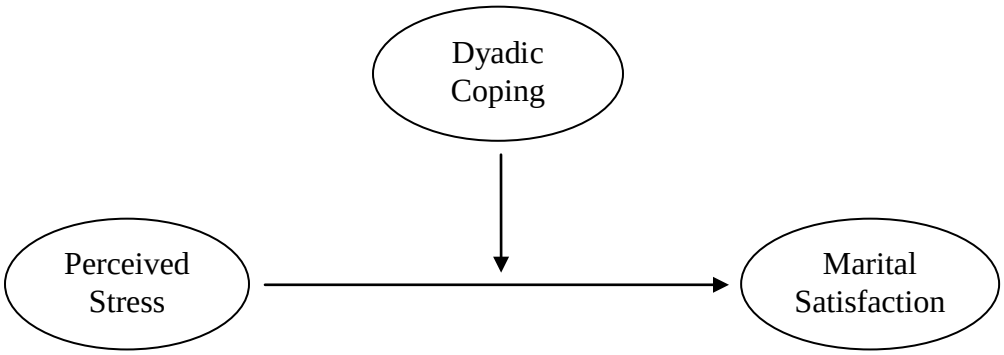
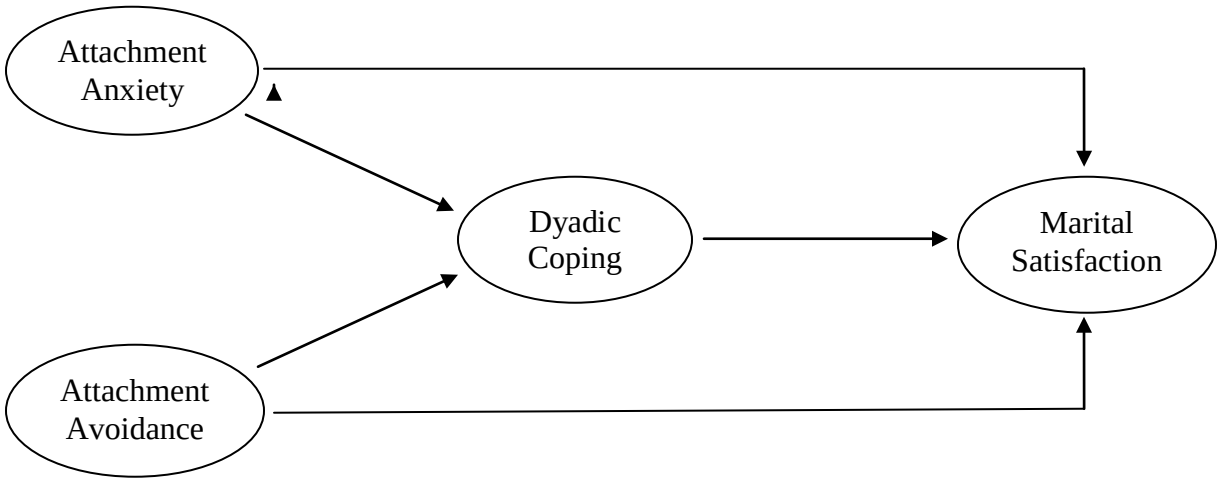


Figure 2. Mediation Model (Research Questions 4 and 5)



Need for the Study

A review of relevant research reveals a number of important gaps addressed by the current study. First, researchers have examined the impact of graduate student stress on marital satisfaction (e.g., Brannock et al., 2000; Gold, 2006; Sori et al., 1996), but not within a population of counseling graduate students. The personal and emotional nature of counseling work can contribute to burnout (Kottler, 1993), compassion fatigue (Stebnicki, 2007), and psychological distress (Emerson & Markos, 1996), which may impact both the student marriage and their ability to successfully navigate the training program. Counselor educators are charged not only with preparing students with concrete skills for providing counseling services, but also skills for coping effectively with the challenges of the graduate program and the counseling profession (Roach & Young, 2007; Witmer & Young, 1996). Therefore, clarification of how the context of counselor

training affects student marital satisfaction will allow counselor educators to better support the personal and professional development of married students.

Secondly, researchers have examined the association between graduate student stress and marital satisfaction among master's students (Polson & Piercy, 1993; Sori et al., 1996) and doctoral students (Brannock et al., 2000; Katz et al., 2000; Legako & Sorenson, 2000; Powers et al., 2004), but not both simultaneously. The current study targets a sample that includes both master's and doctoral counseling students in order to provide helpful information to counselor educators working with students at both levels. In addition, if there are differences in marital satisfaction between the two groups, future studies might include an examination of what factors contribute to the differences. For instance, perhaps doctoral students and their spouses have higher levels of marital satisfaction because they have already navigated the master's training experience and have clearer mutual expectations of program demands. This information would be useful in planning orientation activities to help master's students and their spouses better prepare for aspects of the program that may put marriages at risk.

Finally, adult attachment has been linked with marital satisfaction (e.g., Butzer & Campbell, 2008; Feeney, 1999; Marchand, 2004; Meyers & Landsberger, 2002), but not within a sample of graduate students. The demands of counseling graduate programs require students to devote a great deal of time and energy to coursework, clinical practice, research activities, and personal growth. Attachment dimensions of the student may help to determine how these stressors impact the marriage, as well as the dyadic coping strategies the couple employs.

The results of this study provide valuable information about how perceived stress and adult attachment impact marital satisfaction and coping strategies of counseling graduate students. This information will be useful to counselor educators, counselors who work with graduate students, and students themselves. For example, a better understanding of how attachment impacts marital satisfaction and coping strategies will help counselors working with graduate student couples. Goals of counseling may include building awareness of how each spouse's attachment style contributes to the way they perceive and respond to marital interactions about school-related stressors. In addition, counselor educators can use this information to help prepare students and their spouses for the program. This may include setting clear expectations about how program demands may affect the marriage, as well as suggestions for how to manage these stressors within the marriage. These findings also provide information that may help counselor educators better understand and support married students throughout their time in the program. Ultimately, the findings are intended to benefit married counseling students personally, relationally, and professionally, either directly or indirectly through their counselors, supervisors, or faculty members. Clarification of the factors that impact marital satisfaction and dyadic stress and coping may help counseling students to navigate the training program successfully and eventually contribute to the field as professional counselors and/or counselor educators.

Definition of Terms

Accredited counseling program – A CACREP-accredited training program in counseling or counselor education. This definition includes programs that offer entry-level (i.e., master's) degrees and programs that offer both entry-level and terminal (i.e., Ph.D.) degrees.

Full-time student – A student currently enrolled in at least nine credit hours of graduate study per semester.

Part-time student – A student currently enrolled in less than nine credit hours of graduate study per semester.

Graduate student couples – Married couples in which one spouse is currently enrolled in a graduate program.

Stress – A state of being that results from an individual's appraisal that a particular stressor represents harm, loss, threat, or challenge (Lazarus & Folkman, 1984). For the purposes of this study, stress was measured with the Perceived Stress Scale (PSS; Cohen, Karmarck, & Mermelstein, 1983).

Stressor – A situation or event that has the potential to cause change or stress (Malia, 2006), or to be perceived as a source of harm, loss, threat, or challenge.

Dyadic stress – A shared state of being that results from a specific event or transition that directly or indirectly threatens both spouses and prompts coping responses from both spouses (Bodenmann, 2005).

Dyadic coping – A joint process in which partners respond to dyadic stress by considering and/or interacting with each other in attempts to maintain or enhance

the well-being of each individual and the relationship itself (Bodenmann, 2005). For the purposes of this study, dyadic coping was measured with the Dyadic Coping Inventory (DCI; G. Bodenmann, personal communication, August 11, 2008).

Marital satisfaction – The extent to which one feels content or pleased with the marital relationship; a subjective appraisal of the marriage as generally positive and meeting or exceeding expectations (Hendrick, Dicke, & Hendrick, 1998). For the purposes of this study, marital satisfaction was measured with the Relationship Assessment Scale (RAS; Hendrick, 1988).

Marital instability – A couple's propensity to dissolve an existing marriage, regardless of the final outcome. Indicators include thinking about divorce, discussing the possibility of divorce with one's spouse or others, or consulting an attorney. For the purposes of this study, marital instability was measured with a brief version of the Marital Instability Index (MII; Booth, Johnson, & Edwards, 1983).

Division of household labor – The way in which household tasks are divided between partners. In other words, who is responsible for which tasks? For the purposes of this study, division of household labor was measured with a questionnaire adapted from Erickson (2005) and Kurdek (2007).

Enduring vulnerabilities – Demographic, historical, personality, and experiential factors that individuals bring to marriage (Karney & Bradbury, 1995).

Adaptive processes – Ways that individuals and couples respond behaviorally and cognitively to stressors (Karney & Bradbury, 1995).

Adult attachment – Individual differences in both the way one seeks out and experiences comfort and support from important others, and the expectations one has for how important others will respond to requests for comfort and support. Adult attachment is comprised of two dimensions: anxiety and avoidance (Rholes & Simpson, 2004). For the purposes of this study, attachment is measured with the Experiences in Close Relationships – Revised (ECR-R; Brennan, Clark, & Shaver, 1998).

Attachment anxiety – A strong need for care and attention from attachment figures, along with a perpetual fear that the other is unwilling or incapable of responding sufficiently to these needs (Rholes & Simpson, 2004).

Attachment avoidance – A discomfort with emotional intimacy and a difficulty trusting and depending on others, even in the context of a close relationship (Rholes & Simpson, 2004; Hazan & Shaver, 1987).

Secure attachment – Attachment style characterized by low anxiety and low avoidance (Rholes & Simpson, 2004). Securely attached individuals tend to be comfortable with closeness and trust that attachment figures will provide comfort and support when it is needed (Hazan & Shaver, 1987).

Anxious/ambivalent attachment – Attachment style characterized by high anxiety and low avoidance (Rholes & Simpson, 2004). Anxiously attached individuals tend to crave intimacy but experience a great deal of fear and doubt within close relationships (Hazan & Shaver, 1987).

Avoidant attachment – Attachment style characterized by high avoidance and either high anxiety (fearful-avoidant) or low anxiety (dismissive-avoidant) (Rholes & Simpson, 2004). Highly avoidant individuals tend to be uncomfortable with closeness and are hesitant to trust or depend on others (Hazan & Shaver, 1987).

Brief Overview

This research study is presented in five chapters. This chapter has served to introduce the topic of marital satisfaction among counseling graduate students, including a statement of the problem, purpose of the study, rationale for conducting the current research, and research questions. Chapter two includes a review of relevant existing literature, including theoretical and empirical support for the current research. Chapter three consists of a detailed description of the research design and methodology used in the current study, including hypotheses to be tested, sampling procedures, instrumentation, and procedures. Chapter four includes the results of the analyses used to test the research hypotheses. Finally, chapter five includes a discussion of the results, implications for the counseling field, recommendations for future research, and limitations of the study.

CHAPTER II

REVIEW OF RELATED LITERATURE

In Chapter I, the rationale for a study of the relationships among perceived stress, adult attachment, dyadic coping, and marital satisfaction of counseling graduate students was presented. In this chapter, scholarly literature relevant to this study is reviewed. The chapter begins with a focus on the population being studied, including stressors of graduate school, the marital satisfaction of graduate students, and issues specific to the personal and professional development of counseling graduate students. The next section is focused on marital satisfaction, including attention to relevant theoretical, empirical, and measurement issues. In the third section, attachment theory is discussed, with a focus on how adult attachment relates to aspects of relational well-being. In the final section, stress and coping theory is discussed, as it applies to individuals and couples. A model of dyadic coping is presented, along with relevant empirical research.

Counseling Graduate Students

The first section of the literature review is focused on the target population of counseling graduate students. An overview of research relevant to this population is presented, including stress and marital satisfaction of graduate students, in general, followed by characteristics of counseling graduate programs and important aspects of personal and professional development among counseling trainees.

The Graduate School Experience

The pursuit of higher education can cause a great deal of stress, and this appears to be particularly true among graduate students. A number of researchers in the past two decades have explored the sources, consequences, and coping responses among this population.

Sources of Stress

Some of the stressors reported by graduate students are similar across disciplines, such as rigorous coursework (Nelson, et al., 2001; Toews et al., 1993), performance anxiety (Hodgson & Simoni, 1995; Toews et al., 2001), time management struggles (Nelson et al., 2001; Polson & Nida, 1998; Toews et al., 1993), and financial concerns (Hodgson & Simoni, 1995; Nelson et al., 2001; Polson & Nida, 1998). Students in medical and mental health fields also reported stressors related to practicum and internship placements and challenging clinical work (Nelson et al., 2001; Toews et al., 1993). Other stressors include thesis or dissertation work (Nelson et al., 2001; Polson & Nida, 1998), daily hassles (Nelson et al., 2001), work-family balance (Polson & Nida, 1998), spirituality struggles (Nelson et al., 2001), relationship difficulties (Nelson et al., 2001; Toews et al., 1993), and lack of family or program support (Hodgson & Simoni, 1995; Mallinckrodt & Leong, 2001). Toews et al. (2001) cited stressors associated with developmental tasks of young adulthood, such as stress inherent in relationships and other life transitions, as central to the discussion of student stress.

Role strain is a significant source of stress for graduate students (Polson & Nida, 1998), particularly for women (Mallinckrodt & Leong, 2001). In fact, female students

report greater stress levels, in general (Gupchup, Borrego, & Konduri, 2004; Toews et al., 2001), higher self-expectations (Toews et al., 2001), and less social support from graduate programs and family environments (Mallinckrodt & Leong, 2001). Women are more likely to report a lack of communication and cohesion in the household, indicated by such items as "sharing of responsibilities," and "day to day functioning of the household." These findings suggest that issues related to role strain and division of labor may play a role in the stress experienced by female graduate students (Mallinckrodt & Leong, 2001).

Consequences of Stress

The stressors reported by graduate students have been shown to have a number of effects on physical health, psychological well-being, and academic performance (Calicchia & Graham, 2006; Gupchup et al., 2004; Hodgson & Simoni, 1995; Mallinckrodt & Leong, 2001; Nelson et al., 2001; Polson & Nida, 1998; Toews et al., 1993). For instance, stressors related to spirituality, practicum work, and relationships with professors, supervisors and friends were associated with greater psychological distress (Nelson et al., 2001). Some psychological effects include depression, burnout, anger, irritability alcohol abuse, Type A behavior (which has significant physical health consequences), somatization, phobic anxiety, paranoid ideation, and psychosis (Toews et al., 1993). Among a sample of marriage and family therapy students, 28% considered dropping out due to program demands, and 11% did take a leave from the program for a period of time (Polson & Nida, 1998).

Some of the effects of stress tend to vary based on age, gender, and other factors. For example, women doctoral psychology students were more likely to be academically successful (based on GPA), and academic success was associated with a greater number of surgeries, illnesses, and doctor visits, compared to men (Nelson et al., 2001). Gender differences were apparent in other studies as well. Female students report greater general psychological distress (Gupchup et al., 2004; Hodgson & Simoni, 1995), depression (Mallinckrodt & Leong, 2001; Toews et al., 1993), anxiety (Mallinckrodt & Leong, 2001; Toews et al., 1993) and somatization (Toews et al., 1993). In one study, age differences emerged also, such that older students reported greater suicidality (Hodgson & Simoni, 1995).

Coping Resources

Graduate students use a number of coping resources in response to the stressors they face. Participants reported that the most helpful resources include social support (Calicchia & Graham, 2006; Mallinckrodt & Leong, 2001; Nelson et al., 2001), personal spirituality (Nelson et al., 2001), and mentor relationships (Nelson et al., 2001). In addition, the most commonly used coping strategies were positive reinterpretation, planning, active coping, and seeking emotional social support (Nelson et al., 2001). In general, greater support had a buffering effect on the link between stress and psychological distress (Calicchia & Graham, 2006), particularly for female graduate students, who tended to seek and receive more social support (Mallinckrodt & Leong, 2001; Nelson et al., 2001). These findings indicate possible gender differences in the preference and effectiveness of social support as a coping resource for stress.

Collectively, these findings indicate that graduate students are challenged with a variety of academic, professional, and personal stressors, all of which have significant effects on their physical and psychological well-being. A number of coping resources have been shown to be helpful in dealing with these stressors, and social support from family, friends, supervisors, professors, and mentors appears to be especially helpful. In some cases, moderating factors such as gender and age impact the types of stressors, the effects of stress, and the coping resources that are used.

Marital Satisfaction of Graduate Students

A limited number of researchers in the past decade have examined empirically the marital satisfaction of graduate students. Two studies were conducted with marriage and family therapy students (Polson & Piercy, 1993; Sori et al., 1996), one with medical students (Katz, Monnier, Libet, Shaw, & Beach, 2000), one with Christian psychology graduate students (Legako & Sorenson, 2000), and two with general samples of graduate students (Brannock et al., 2000; Gold, 2006). Findings of these studies will be reviewed, with particular attention to specific sources of marital dissatisfaction, sources of marital enhancement, moderating factors, and methodological issues.

The most recent study focused on the marital satisfaction of graduate students was conducted by Gold (2006). Sixty-five graduate students (38 doctoral and 27 master's) at a large southeastern research university were recruited from core graduate courses in the school of education. The participants were given a demographic questionnaire and the Marital Satisfaction Index – Revised (MSI-R; Snyder, 1997) to measure distress on 13

scales (10 dimensions of relationship distress, 2 validity scales, and 1 global distress scale).

Significant main effects were found for gender, such that females reported significantly more dissatisfaction with problem solving communication ($F(1, 43) = 1.30$, $p < .05$), conventionalism ($F(1, 43) = 3.47$, $p < .01$), and role orientation ($F(1, 43) = 2.03$, $p < .05$), whereas males reported significantly more dissatisfaction with communication regarding finances ($F(1,20) = 2.46$, $p < .05$). There were no significant main effects for degree level or interactions between degree level and gender. Among master's students, mean levels of both genders scored in the problematic range on global distress, time together, and disagreement about finances (based on the MSI-R's scoring categories of good, possible problem, and problem area). Affective communication, problem solving communication, and sexual dissatisfaction were rated as possible problems by master's level men (but not women), whereas master's level women (but not men) rated aggression and family history of distress as possible problems. Among doctoral students, men rated global distress, affective communication, problem solving communication, aggression, time together, disagreement about finances, and sexual dissatisfaction as more problematic than women, whereas women considered greater family history of distress to be more problematic than men (Gold, 2006).

This study provides descriptive information about how gender and degree level impacts marital satisfaction of graduate students, as well as information about specific areas of marital distress among this population. Limitations include convenience sampling, small sample size, self-report data, and cross-sectional data (Gold, 2006).

Similarly, Brannock et al. (2000) examined the general marital satisfaction of doctoral students. Their stratified sample included an equal number of students randomly selected from three categories (beginning, middle, and end of program). Out of 200 potential participants, 54 responded (26% response rate). The survey questionnaire included the following instruments: a demographic questionnaire developed by the lead researcher, the Locke-Wallace Marital Adjustment Test (LWMAT; Locke & Wallace, 1959), and the Index of Marital Satisfaction (IMS; Hudson, 1993).

These researchers found no significant differences in marital satisfaction due to year in program, presence of children, length of marriage, spousal employment status or educational level, previous marriages, or parental divorce. Participants who were married to other students reported higher marital satisfaction. Participants who had experienced marital therapy reported lower marital satisfaction. Three areas of marital discord were shown to have a significant impact on marital satisfaction: philosophy of life (accounting for 21% of the variance in marital satisfaction), demonstration of affection (20% of marital satisfaction variance), and sexual relations (13% of marital satisfaction variance). Only the philosophy of life factor, however, was found significant in post-hoc analyses (Brannock et al., 2000).

This study provides some interesting descriptive data regarding the marital satisfaction of doctoral students. Some limitations, however, impact the validity and reliability of the results. The low response rate poses external validity threats, and the small sample size may have precluded significant results. In addition, the researchers

provided very little information about the sampling frame, such as the type of graduate programs, geographic locations, or any demographic information (Brannock et al., 2000).

Katz et al. (2000) conducted a study to examine the effects of stress on medical student marriages. Their sample included sixty students and spouses (30 couples) from a large southeastern medical school. The survey packet included the Beck Depression Inventory (BDI; Beck et al., 1961) to measure depression, the Dyadic Adjustment Scale (DAS; Spanier, 1976) to measure marital satisfaction, the Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983) to measure experienced stress, and the Spouse Specific Support Scale (SSSS; Cohen, Mermelstein, Kamarck, & Hoberman, 1985) to measure spousal support in the form of cohesion and intimacy.

No significant differences were found between students and spouses or between males and females on the four main study variables (stress, marital support, marital satisfaction, and depressive symptoms). For medical students, higher levels of stress were associated significantly with higher levels of depression ($r = .54$, $p < .01$) and lower levels of marital satisfaction ($r = -.45$, $p < .01$). In addition, spousal support had a significant main effect on marital satisfaction ($\beta = .70$, $p < .01$). Similar zero-order correlations were found for spouses, such that higher levels of stress were associated significantly with higher levels of depression ($r = .42$, $p < .05$) and lower levels of marital satisfaction ($r = -.41$, $p < .01$). In addition, spousal support and stress had an interaction effect on spouses' marital satisfaction ($\beta = -.56$, $p < .01$), such that spousal support buffered the effects of stress on marital satisfaction. In addition to these individual effects, the findings indicated some crossover effects, in which one's reports of stress

predicted the spouse's reports of depressive symptoms. Hypotheses regarding crossover effects on marital satisfaction, however, were not supported (Katz et al., 2000).

These results indicate that stress has a significant negative impact on individual and marital well-being, and that regardless of whether the effect is direct or indirect, spousal support has a significant positive impact on individual and marital well-being of both medical students and their spouses. The hypothesized crossover effects of medical student stress on spouses' stress and marital satisfaction were not supported, and further research may help to clarify the relationships among these variables. Due to the small sample made up primarily of white male students and their spouses, generalizability of the results is limited. Further limitations include self-report bias and cross-sectional data that do not allow for causal analysis (Katz et al., 2000).

Two studies were located that were conducted with marriage and family therapy (MFT) trainees; one of these was qualitative and the other was quantitative. The quantitative study, conducted by Sori et al. (1996), used a sample of 145 couples recruited from accredited MFT programs (response rate of 29%). The survey included a modification of Wetchler and Piercy's (1986) instrument to measure the extent to which certain factors of MFT programs are considered stressful or enhancing. Although the study did not measure marital satisfaction specifically, it did provide descriptive information about the effects of MFT training programs on married students and their families.

The factors rated as most stressful by both trainees and spouses were: little time left for one's own marriage/family, little energy left for one's own marriage/family, and

personal development of trainee was beyond that of the spouse. Factors ranked as most enhancing for the trainees were: awareness of normal life cycle problems, accepting one's own part in marital/family problems, and a greater awareness of one's own humanness. Factors ranked as most enhancing for the spouses were: trainees accepting their own part in marital/family problems, awareness of normal life cycle problems, and increased ability to deal with family-of-origin. Females tended to have higher enhancer scores ($t = 2.28$, $df = 90$, $p < .05$) and lower stress scores ($t = 1.95$, $df = 133$, $p < .053$) than males. Overall, MFT students rated the training experience as both more stressful and more enhancing than spouses ($t = 2.40$, $df = 82$, $p < .02$). Both students ($t = 19.03$, $df = 98$, $p < .01$) and spouses ($t = 11.37$, $df = 93$, $p < .01$), however, indicated that the graduate school experience was more enhancing than stressing (Sori et al., 1996).

Although this study did not measure marital satisfaction specifically, the results highlight some of the factors that may affect the marital satisfaction of graduate students and their spouses, including too little time and energy for one's own marriage and family, and differing rates of personal growth. The results of this study are descriptive in nature, and only one instrument was used. No information was provided regarding the psychometric properties of the instrument. The results may be used to inform future research that investigates these stressors and enhancers in more detail and in relationship to other variables of interest (Sori et al., 1996).

In a similar study, Polson and Piercy (1993) explored qualitatively the effects of MFT training on married students. These researchers used a sample of 17 married students and their spouses enrolled in the MFT doctoral program at Purdue University.

Ten of the participants were married with children and 7 of the participants were married without children. Data were gathered through the use of structured focus group interviews.

Participants reported that some of the strengths of the MFT training program included an environment that provided opportunities for personal growth, sharing of ideas, interactions with peers and faculty, friendships, and the development of clinical skills that had a positive impact on student marriages. Some of the program stressors discussed by the student participants included difficulties balancing school and family, feeling pressure from selves and faculty, implicit and explicit expectations from the faculty (to publish, attend conferences, etc.), specific program requirements, and receiving double messages from faculty regarding work-life balance. The spouse participants experienced different kinds of stressors, including those associated with relocating, transitioning to a new community, feeling isolation, and feeling that the program had a detrimental effect on their marriages. Participants described some of their coping strategies, such as time management strategies, prioritizing, organizing routines for family and couple time, and taking time off to get away occasionally (Polson & Piercy, 1993). These findings shed light on sources of stress and methods of coping that impact MFT student marriages. This provides qualitative evidence that program stress impacts the entire family system, and these impacts may have a deleterious effect on the ability of students to successfully navigate the training program.

Another qualitative study was conducted by Legako and Sorenson (2000), with a sample of 12 (six male and six female) nonstudent spouses of Christian psychology

graduate students. The narrative interviews included questions in five areas: background information, perceived quality and satisfaction of marriage, the impact of graduate training on marriage, the impact of integration training (integration of psychological theory and Christian theology, and recommendations for future use of interview findings.

The majority of spouses reported that the accumulated stress of their partners' graduate study had a detrimental effect on their marriages. These effects were linked to long hours away from spouse, feeling neglected and pushed aside, feeling psychoanalyzed, and the pressures of graduate school. On the other hand, most spouses also noticed positive effects in their student partner, such as an increase in emotional expressivity, confidence, and personal growth. Finally, the participants discussed frustrations they felt about the philosophical changes in their partners over the course of their graduate study. Because the sample was from a Christian psychology program, some of this was related to changes in theology that the spouse could not understand. In general, the results of this study indicate that graduate training programs have both positive and negative effects on student marriages, and that further research of these factors may help to better prepare student couples for the graduate school experience (Legako & Sorenson, 2000).

In summary, only a handful of researchers have explored the marital satisfaction of graduate students and their spouses. Commonly reported sources of marital dissatisfaction included discordant philosophies of life and religion (Brannock et al., 2000; Legako & Sorenson, 2000), affective expression (Brannock et al., 2000; Gold, 2006), sexual relations (Brannock et al., 2000; Gold, 2006), lack of time and energy for

marriage and family (Gold, 2006; Polson & Piercy, 1993; Sori et al., 1996), incongruent levels of personal development (Sori et al., 1996), accumulated stress of graduate school (Legako & Sorenson, 2000; Polson & Piercy, 1993), communication difficulties (Gold, 2006), aggression (Gold, 2006), and spouse-specific stressors, such as transitioning, relocating, feeling isolated (Polson & Piercy, 1993). On the other hand, some findings indicated certain benefits of graduate study that served to enhance student marriages, including increased awareness of life course development (Sori et al., 1996), increased accountability for marital/family problems (Sori et al., 1996), greater humility and awareness of personal flaws (Sori et al., 1996), increased ability to deal with family-of-origin (Sori et al., 1996), greater emotional expressivity (Legako & Sorenson, 2000), and development of clinical skills (Polson & Piercy, 1993). Additionally, in some cases, marital satisfaction varied based on gender (Gold, 2006; Sori et al., 1996), partner position (i.e., student versus spouse; Brannock et al., 2000; Sori et al., 1996), and perception of spousal support (Katz et al., 2000). Not all researchers confirmed these differences, however, as Katz et al. (2000) found no differences due to partner position or gender. Common limitations of these studies include small sample sizes (only one study had $N > 100$) and low response rates. Additionally, generalized interpretations are difficult, because several studies used qualitative designs and each study included different conceptual definitions and measurements of variables.

Counseling Graduate Programs

The counseling profession grew out of a number of disciplines and social movements, including vocational guidance, psychology, psychological testing, the mental

health movement, and other social reform efforts (Hosie & Glosoff, 2001). Over the past 60 years, the counseling field has grown in size, broadened its services and clientele, and strengthened its identity among the mental health and therapeutic professions (Hollis, 1997). By 2000, over 540 academic departments were offering one or more counseling degree programs, in specialty areas such as school counseling, community counseling, mental health counseling, marriage and family counseling, rehabilitation counseling, college counseling, student affairs, and (doctoral-level) counselor education (Hollis, 2000). According to a detailed review of counselor education programs, several trends are emerging (Hollis, 2000). First, both admission and graduation requirements are becoming more demanding, likely in response to state licensure requirements and the need for more specialized expertise to meet demands of the field. In addition, clinical training components are adjusting in order to provide students with more substantive clinical experiences. This includes direct client contact earlier in their training and increased number of required clinical hours. These developments contribute to the rigorous demands of counseling graduate programs.

Personal and Professional Development of Counselors

In addition to the academic rigors of a graduate program, counseling students face some unique developmental challenges. Some of the most commonly reported struggles of novice counselors include acute performance anxiety, the stress of being evaluated, difficulty setting appropriate emotional boundaries, developing an identity as a counselor, inadequate conceptual models of the counseling process due to inexperience, glamorous

expectations about one's impact on clients, and an acute need for positive mentors (Skovholt & Ronnestad, 2003).

As the above description suggests, the personal and professional development of counselors are closely intertwined. Counseling students are challenged with the very personal nature of the training. As counselors-in-training, they are learning both the skills-based aspects of counseling (i.e., how to *do* counseling), and the relational-aspects of counseling (i.e., how to *be* in authentic, therapeutic relationships with clients). This requires a great deal of self-reflection and opportunities for personal growth to be infused in the training program. A high level of self-awareness is necessary for several reasons, including the following: 1) to enhance the counselor's ability to empathize with the client's life journey, 2) to utilize the relationship as a medium for modeling desired behaviors and attitudes (e.g., self-reflection, personal growth, readiness for change), 3) to identify and overcome personal biases that impede the counseling process, and 4) to maintain appropriate boundaries with clients. This philosophy of counseling was articulated eloquently by one of the foremost leaders of the profession, Thomas Sweeney (2001, p. 22-23):

> We are more than scientists using knowledge to manipulate other persons for their own greater good. We are living, dynamic humans in our own state of evolving. We are just as enmeshed in the trials of our own lives as our clients are enmeshed in the trials of their lives. We must be students of ourselves as well…we must attend to the admonition "Counselor heal thyself"; that is, we must model our personal commitment to a wellness approach to life. Managing our own lives so as to model this for our clients and students, however, is a constant challenge.

This fundamental aspect of the counseling profession can be very challenging for both students and professional counselors. Counseling, along with many helping professions, is a high-stress occupation (O'Halloran & Linton, 2000; Skovholt, 2001; Sweeney, 2001). The personal, emotional, and sometimes traumatic nature of the work can contribute to burnout (Kottler, 1993), depression (Deutsch, 1985), anxiety (Emerson & Markos, 1996), compassion or empathy fatigue (Stebnicki, 2007), and drug or alcohol abuse (Emerson & Markos, 1996), all of which may be signs of counselor impairment (Skovholt, 2001; Stebnicki, 2007). Counselor impairment refers to a state of diminished competence resulting from physical, mental, or emotional problems that may harm clients or others (ACA Code of Ethics, 2005).

Given the profound effects of occupational stress, its potential to impact both counselors and their clients, and the ethical obligation to address counselor impairment, researchers and counselor educators have advocated for additional attention to the wellness and self-care of counselors and counselors-in-training (Herlihy, 1996; Stebnicki, 2007; Witmer & Young, 1996). More specifically, counselor educators are recognizing the need to provide counseling students with knowledge and skills for coping with stress, burnout, and impairment (Witmer & Young, 1996). Some suggestions include orienting students to the specific types of stressors they may encounter throughout the program and their career (Witmer & Young, 1996); implementing a wellness model as part of the curriculum (Myers, Mobley, & Booth, 2003; Roach & Young, 2007; Witmer & Young, 1996); emphasizing the importance of supervisory, peer, and family support (Witmer & Young, 1996); and providing an orientation for spouses and family members of

counseling students (Furr & Carroll, 2003). Learning effective strategies for dealing with the stressors of the counseling field can have long-term impacts on student, professional, and client well-being.

Summary

In this section, an overview of the study population was provided, including research on the stress and marital satisfaction experienced by graduate students in general, and a description of the challenges faced by counseling graduate students in particular. Graduate students report a wide range of academic, professional, and personal stressors, which have significant effects on their physical and psychological well-being. Graduate students use a variety of coping resources and strategies, with social support serving an especially helpful role. Married graduate students report that graduate study has a significant impact on their relationships and family life. Sources of marital dissatisfaction include lack of time and energy for the marriage, communication difficulties, financial concerns, and differing levels of personal growth. In addition to these stressors associated with graduate study in general, counseling graduate students face challenges associated with the high-stress nature of helping professions. The personal and emotional nature of counseling work can contribute to burnout, compassion fatigue, psychological distress, and ultimately, counselor impairment. In response to these challenges, counselor educators are advocating for additional emphasis on providing counseling students with knowledge and skills for coping with stress, burnout, and impairment.

Marital Satisfaction

This section is focused on the first of two theoretical foundations of the current study. First, information about the role of marital satisfaction within marital research will be provided. An overview of the most prominent theoretical perspectives on marital quality will be presented, each of which inform the Vulnerability-Stress-Adaptation Model used in the current study. Empirical research will be reviewed, including predictors of marital satisfaction and the effects of stress on marital relations. Finally, the section will conclude with a discussion of the measurement of marital satisfaction.

The Study of Marital Satisfaction

The sheer volume of research devoted to the study of marital satisfaction over the past two decades is an indication of its importance for individual, family, and societal well-being (Bradbury, Fincham, & Beach, 2000). With about 56% of adults in the United States married and living with their spouses, the marital relationship is primary for most American adults (Robles & Kiecolt-Glaser, 2003). Married individuals report greater life satisfaction (Mastekaasa, 1994), lower risk of depression (Coyne & DeLongis, 1986), lower mortality rates (Johnson, Backlund, Sorlie, & Loveless, 2000), and better economic well-being (Johnson et al., 2000) than unmarried individuals. Marriage, however, also can have deleterious impacts on health, particularly when the marriage is in distress. In other words, although marriage provides some physical and psychological benefits, these benefits tend to be limited to happily-married individuals (Kiecolt-Glaser & Newton, 2001). In fact, unhappily married individuals have lower levels of physical and psychological well-being than unmarried individuals (Coyne & DeLongis, 1986).

Researchers have documented consistently the relationship between marital quality and physical health (Robles & Kiecolt-Glaser, 2003; Schmaling & Sher, 1997), psychological well-being (Barnett, Raudenbush, Brennan, Pleck, & Marshall, 1995; Kamp Dush et al., 2008; Kelly & Fincham, 1999), and general life satisfaction (Heller, Watson, & Ilies, 2004). In a recent meta-analytic review of the literature on marital quality and personal well-being, Proulx et al. (2007) found that marital quality was associated significantly with personal well-being (i.e., depressive symptoms, self-esteem, life satisfaction, global happiness, and physical health) in 66 cross-sectional studies (weighted mean effect r = .37) and 27 longitudinal studies (weighted mean effect r = .25). These findings underscore the broad implications of marriage and satisfaction with one's own marriage.

Although divorce rates have decreased slightly since their all-time high in the early 1980's, recent estimates indicate that, for persons aged 45 or younger, 50% of men's first marriages and 45-50% of women's first marriages will end in divorce (as cited in Kitson, 2006). In addition, 30% of U.S. couples divorce within 10 years (as cited in Kitson, 2006). Levels of satisfaction within first marriages have declined during this time period, as well (Rogers & Amato, 1997). These statistics, along with the aforementioned physical and psychological correlates of happy marriages, help to explain the vast amount of research aimed at uncovering the causes and correlates of marital satisfaction. This area of study is fertile for both basic and applied research, as a thorough understanding of these causes and correlates is needed in order to inform effective preventive, clinical, and policy efforts involving couples in distress (Bradbury et al., 2000).

Theoretical Perspectives on Marital Quality

One critique of the rapidly growing body of marital research is that much of it is either not grounded in theory or grounded in a variety of theories borrowed from other disciplines, (Aron & Aron, 1995; Berscheid, 1995; Fincham & Beach, 2006; Karney & Bradbury, 1995). According to Karney and Bradbury (1995), these borrowed theories are insufficient in 1) addressing the full range of possible predictors of marital outcomes across all levels of analysis, 2) describing specific mechanisms of change and development within marriage, and 3) explaining variability in marital outcomes between and within couples over time. In order to address these limitations, Karney and Bradbury (1995) proposed a model intended to integrate the strengths of the previous theories and include elements that meet the above criteria, thus forming a single framework with which to study marital development. Their vulnerability-stress-adaptation (VSA) model incorporates aspects of social exchange theory, behavioral theory, crisis theory, and attachment theory. Each of these will be briefly described, followed by a more in-depth description of the VSA Model.

Social Exchange Theory

Social exchange theory evolved from Thibaut and Kelley's (1959) interdependence theory, which focuses on the relative dependence of each partner on the relationship, and the extent to which individual needs are met within the relationship. Levinger (1965) extended this idea and suggested that the formation, development, and outcome of relationships are based on an ongoing evaluation of the rewards and costs of the relationship. In other words, the success or failure of the relationship depends on each

partners' assessment of the attractiveness of the relationship (i.e., rewards minus costs), barriers to abandoning it (e.g., financial or religious constraints), and the presence of potential alternatives (e.g., other possible partners, independence). Ultimately, marriages in which there are few attractions, few barriers, and attractive alternatives are more likely to end. Lewis and Spanier (1982) used the tenets of social exchange theory to categorize marital relationships as satisfying and stable, satisfying but unstable, unsatisfying but stable, or unsatisfying and unstable. For instance, an unsatisfying but stable marriage would be characterized with few attractions (fewer rewards and greater costs), but some barriers to leaving the relationship and/or lack of attractive alternatives. This typology underscores the distinction between marital satisfaction and stability and accounts for the fact that each may have its own set of predictors. Although social exchange theory allows for the incorporation of a wide range of variables, distinguishes between marital satisfaction and marital stability, and can account for a variety of marital outcomes, it does have some limitations. The main limitation of social exchange theory is that it does not address how perceptions of attractions and barriers develop or change. Thus, the theory does not provide an explanation of how marriages change over time.

Behavioral Theory

Behavioral conceptualizations of marriage also are grounded in interdependence theory (Thibaut & Kelley, 1959), yet Karney and Bradbury (1995) noted that whereas social exchange theory is intrapersonal in nature, behavioral theory has an interpersonal focus. The main premise of behavioral theory is that marital satisfaction is based on the exchange of specific behaviors between partners. Thus, the exchange of rewarding,

positive behaviors contributes to marital satisfaction, whereas punishing, negative behaviors damage marital satisfaction (Kelly, Fincham, & Beach, 2006; Karney & Bradbury, 1995). These behavioral exchanges may not have a direct effect on marital satisfaction; rather, they may influence satisfaction through the attributions that partners make for one another's behavior. Over time, the cumulative effect of behavioral patterns and cognitive attributions are thought to have a significant impact on each partner's perception of marital quality (Bradbury & Fincham, 1990; Gottman, 1990). Behavioral theory offers specific mechanisms that explain how marriages, and each partner's evaluation of the marriage, change over time. Behavioral approaches are the foundation for many marital intervention and distress prevention programs, in part, because they offer the most concrete routes to change (Gottman, 1999; Kelly & Fincham, 1999; Stanley, Blumberg, & Markman, 1999). This focus on microlevel interactions, however, limits the theory by not acknowledging the role of macrolevel and contextual variables in marital interaction and quality. Additionally, the range of marital outcomes explained by behavioral theory is limited.

Crisis Theory

Crisis theory is rooted in Hill's (1949) examination of how families respond to stressful events. His ABCX model consists of stressful events (factor A), the family's resources for managing the stressor (factor B), and the family's definition or meaning of the events, which combine to determine the nature and outcome of the crisis (factor X). McCubbin and Patterson (1982, 1983) extended Hill's model by incorporating the factor of time. More specifically, they acknowledge the ways in which stressors, resources,

definitions and responses develop over time and the implications this has for the way families respond to future stressful events. According to these models, stressful events impact marital satisfaction and marital outcomes, and this relationship is moderated by the couple's resources and definition of events (Karney & Bradbury, 1995). Crisis theory contributes to marital research by addressing the role of environmental factors on marital processes and offering explanation for variation in marital duration. A limitation of crisis theory, however, is that it does not offer specific explanations of how marriages change over time.

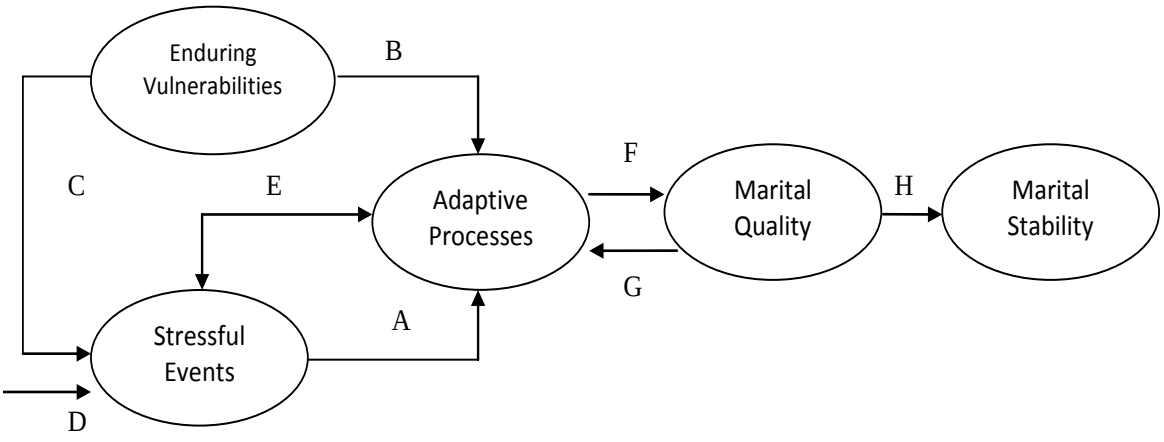
Attachment Theory

Attachment theory, initially formulated by Bowlby (1969), is based on the premise that the parent-child relationship creates a mental model of close relationships, which informs the nature and development of the individuals' subsequent relationships. Specific attachment styles were identified by Ainsworth et al. (1978), and the concept was applied directly to adult romantic relationships by Hazan and Shaver (1987, 1994). According to the tenets of attachment theory, relationship satisfaction depends primarily on the fulfillment of basic relational needs and one's confidence in the responsiveness and availability of the partner to fulfill those needs (Hazan & Shaver, 1994). This theory serves as a supplemental foundation of the current study and will be discussed in more detail later in the chapter. Attachment theory incorporates the overlooked role of enduring characteristics and individual history into the perspective of marital quality. An explanation of how these personal characteristics contribute to variability and change in marriage over time, however, is absent.

Vulnerability-Stress-Adaptation Model

The vulnerability-stress-adaptation (VSA) model was developed as an integrative framework of marital quality and stability that incorporates empirical findings and theoretical contributions (Karney & Bradbury, 1995). The underlying structure of the model suggests that variations in marital quality and stability over time can be explained by a combination of enduring vulnerabilities, stressful events, and adaptive processes. Enduring vulnerabilities refer to the stable personality characteristics, demographic factors, and experiences that each individual brings to the relationship. Stressful events are defined as the developmental transitions and acute or chronic environmental stressors that couples encounter. Adaptive processes encompass the behavioral and cognitive ways that individuals and couples manage relational challenges and transitions. Each path of the model, pictured in Figure 1, represents a hypothesis of the model.

Figure 3. Vulnerability-Stress-Adaptation Model (reprinted from Karney & Bradbury, 1995)



Path A: Stressful events to adaptive processes. The first hypothesis of the model is that stressful circumstances and events have an effect on behavioral interactions and cognitive processes within the relationship. In other words, variation in the nature and degree of life stress may be related to different types of behaviors, attributions for partners' behavior, and other responses to the stressors. According to the VSA model, these adaptive processes may be a mediator for the longitudinal link between stress and marital outcomes (Karney & Bradbury, 1995).

Path B: Enduring vulnerabilities to adaptive processes. Adaptive processes used by partners also may account for the well-documented link between individual characteristics and marital outcomes. For instance, family-of-origin experiences, parental marital quality, and personality characteristics have been shown to impact the way individuals respond to and think about issues in their own adult partnerships (Karney & Bradbury, 1995).

Path C: Enduring vulnerabilities to stressful events. Some stressful events and circumstances may, in fact, be affected by the individual qualities and prior experiences of each partner. Personality traits, such as negative affect have been linked to the frequency of stressful events and the perception that circumstances are more distressing (Karney & Bradbury, 1995).

Path D: Chance variables to stressful events. Many stressful events or situations, of course, are simply the result of chance variables that cannot be predicted from other factors in the VSA model (Karney & Bradbury, 1995).

Path E: Adaptive processes to stressful events. Although the purpose of adaptive processes is to ameliorate the effects of stress, some ineffective responses may result in worsening the situation. Together, paths A and E indicate the potential for a downward spiral effect of stress prompting an adaptive process, which instead serves to exacerbate the stressful circumstances, which in turn continue to tax the couple's adaptive abilities (Karney & Bradbury, 1995).

Path F: Adaptive processes to marital quality. Consistent with behavioral perspectives on marital quality, this hypothesis addresses the direct relationship between adaptive processes and marital relations. In other words, the way couples respond to stress via conflict resolution, problem-solving, and cognitive appraisals of the situation and each other are expected to have a direct effect on reports of marital satisfaction (Karney & Bradbury, 1995).

Path G: Marital quality to adaptive processes. On the other hand, subjective judgments and attitudes about the relationship may either dampen or reinforce the couples' abilities and willingness to use effective strategies of problem-solving, support and coping. Path F and G represent another potential cycle, such that adaptive behaviors and cognitions impact marital satisfaction, which in turn affects the way couples respond to each other in stressful situations, which in turn continues to either damage or enhance each partners' assessment of the relationship (Karney & Bradbury, 1995).

Path H: Marital quality to marital stability. This path represents the intuitive and empirical link between quality of the marriage and how stable it is. The moderate

association between marital quality and stability has been well-documented (Karney & Bradbury, 1995).

Factors that Impact Marital Satisfaction

With the surge of marital research over the past two decades, a great deal of information has been gleaned about the factors that impact marital satisfaction. An overview of this empirical research is provided below, divided into the following categories: demographic variables, intrapersonal variables, interpersonal variables, and cognitive variables. In addition, a more detailed review of empirical research on the relationship between stress and marital satisfaction will be provided.

Demographic Variables

Marital satisfaction has been shown to differ based on certain demographic variables, such as gender, number of children, age at marriage, employment status, education level (Kamp Dush et al., 2008; Jose & Alfons, 2007), race, and income level (Kamp Dush et al., 2008; Dakin & Wampler, 2008). Kamp Dush et al. (2008) discovered significant differences in the demographic variables of three distinct trajectories of marital satisfaction over time. More specifically, husbands, White partners, fewer children, and wives who worked longer hours were more likely to report higher marital satisfaction, while wives, non-Whites, and those who married at a later age were more likely to report lower marital satisfaction.

Intrapersonal Variables

Researchers have examined a number of individual variables and their effect on relationship satisfaction, including negative and positive affect (Johnson et al., 2005;

Pasch & Bradbury, 1998), self-esteem (Aube & Koestner, 1992; Bradbury, Campbell, & Fincham, 1995; Sacco & Phares, 2001), depression (Beach & O'Leary, 1993; Fincham & Bradbury, 1993; Kouros, Papp, & Cummings, 2008), neuroticism (Caughlin, Huston, & Houts, 2000; Fisher & McNulty, 2008; Karney & Bradbury, 1997), personality (Gattis, Berns, Simpson, & Christensen, 2004; Kurdek, 1993; Shiota & Levenson, 2007) and attachment (Banse, 2004; Butzer & Campbell, 2008; Kane et al., 2007). In addition to these individual characteristics, past life experiences also have been shown to impact marital satisfaction. These experiences include parental divorce (Amato & Booth, 2001; Axinn & Thornton, 1992), parental alcoholism (Campbell, Masters, & Johnson, 1998; Watt, 2002), family conflict (Doucet & Aseltine, 2003), and childhood abuse (Belt & Abidin, 1996; McCord, 1983). Along with the aforementioned demographic variables, these individual characteristics and background experiences fall under the category of enduring vulnerabilities in the VSA model.

Interpersonal Variables

The effect of specific behavioral interactions on marital satisfaction and quality is one of the most studied topics in this arena. For applied researchers, this is an area that produces findings that can be used rather easily to inform prevention and intervention programs. These studies focus on aspects of marital interaction such as communication or conflict resolution skills (Johnson et al., 2005; Pasch & Bradbury, 1998; Rogge, Cobb, Johnson, Lawrence, & Bradbury 2002), spousal support (Cutrona, 1996; Pasch & Bradbury, 1998; Suitor & Pillemer, 1994), affective expression (Gottman & Levenson, 1992; Johnson et al., 2005; Pasch & Bradbury, 1998), interactional sequences, such as the

demand-withdraw pattern (Heavey, Christensen & Malamuth, 1995; Gottman, 1998; Weiss & Heyman, 1997), aggression or violence (Byrne & Arias, 1997; Lawrence & Bradbury, 2007), and general behavior in the home (Huston & Chorost, 1994; Huston & Vangelisti, 1991). Given the sociocultural changes around gender roles, researchers have examined how marital satisfaction is impacted by the way couples negotiate work-family balance, including division of household and parenting responsibilities (Bradbury et al., 1995; Johnson et al., 2008; Kamp Dush et al., 2008; Lavee & Katz, 2002; Meier, McNaughton-Cassill, & Lynch, 2006; Saginak & Saginak, 2005). These behaviors, especially those in response to a challenge or stressor faced by the couple, fall under the category of adaptive processes in the VSA model.

Cognitive Variables

In addition to observable behaviors, adaptive processes include cognitions that affect the relationship. There is a large body of research focused on the relationships between marital satisfaction and cognitive processes such as attributions (Bradbury & Fincham, 1992; Fincham, Harold, & Gano-Phillips, 2000; Karney & Bradbury, 2000), relationship beliefs (Addis & Bernard, 2002; Amato & Rogers, 1999; Hamamci, 2005), and expectations (McNulty & Karney, 2004; Waller & McLanahan, 2005). In general, these studies provide evidence that the way one thinks about the relationship has a strong influence on how one feels about the relationship.

Stress and Marital Satisfaction

To emphasize the importance of the link between stress and marital satisfaction, one must only try to imagine a marriage within a context completely free of change,

transitions, conflict, unexpected circumstances, and challenging events. The reason that such a context is so difficult to imagine is that these stressors are a normal part of the life course (Carter & McGoldrick, 2005). Although a complete lack of life stress is virtually impossible, there exists a great deal of variability in the amount, type, frequency, and severity of stressors, as well as a great deal of variability in how such stressors impact particular individuals, couples, and families. Because the marital relationship tends to be the most primary relationship in one's life (Robles & Kiecolt-Glaser, 2003), it is an important context in which individuals experience stress, and can serve as both a source of stress and a resource for handling stress (Pearlin & Turner, 1987). Following is a review of empirical research on the relationship between stress and marital satisfaction.

Most research confirms the intuitive assumption that higher levels of stress have an adverse effect on marital satisfaction (e.g., Bodenmann, Ledermann, & Bradbury, 2007; Cohan & Bradbury, 1997; Tesser & Beach, 1998; Whiffen & Gotlib, 1989). For example, Tesser and Beach (1998) found a significant negative linear trend in marital satisfaction due to life stress for both husbands and wives. Similarly, Whiffen and Gotlib (1989) found that marital distress in husbands was associated with higher levels of stress and negative impact from life events for both partners. Bodenmann et al. (2007) found that both acute and chronic stress was associated with higher levels of relationship stress and tension, which in turn, was related to lower reports of marital and sexual satisfaction. Finally, Cohan and Bradbury (1997) found a negative relationship between negative life events and marital satisfaction of wives. In general, these studies support the assumption that stress and marital satisfaction are inextricably linked.

Other researchers, however, have provided evidence that there may be some situations in which stress does not have a negative effect on marital satisfaction, and may, in fact, serve to strengthen the marital relationship (e.g., Gritz, Wellisch, Siau, & Wang, 1990; Lehman, Lang, Wortman, & Sorenson, 1989; Schwab, 1998; Ward & Spitze, 1998). In the study previously mentioned by Bodenmann et al. (2007), husbands who experienced more external daily hassles reported higher marital satisfaction. Other findings indicate that marital relations may improve as couples deal with stressors such as testicular cancer (Gritz et al., 1990), the death of a child (Lehman et al., 1989; Schwab, 1998), and caring for aging parents (Ward & Spitze, 1998). These results are consistent with a personal growth model, which suggests that challenging events provide opportunities for couples to deepen commitment and intimacy (Story & Bradbury, 2004).

Other related factors may help to explain these seemingly contradictory findings. In order to have a more complete picture of the relationship between stress and marital satisfaction, many researchers have explored potential moderators and mediators of this relationship (e.g., Cohan & Bradbury, 1997; Conger et al., 1999; Graham & Conoley, 2006; Karney et al., 2005; Neff & Karney, 2004). Several researchers have found that cognitive processes play a role in mediating the effects of stress on a marriage. For instance, Neff and Karney (2004) found that, for wives, stress led to negative perceptions of the relationship and a tendency to blame partners, both of which affected marital satisfaction. Additionally, attributions served to moderate the effect of stress on marital satisfaction in a study by Graham and Conoley (2006). In this study, negative marital attributions increased the impact of stressful events, while positive attributions served as

a buffer. Other researchers have explored behavioral interactions as moderators of the stress-satisfaction link. The buffering hypothesis has been supported in several studies, which indicated that effective problem solving helps to ameliorate the effect of economic stress (Conger et al., 1999) and negative life events (Cohan & Bradbury, 1997) on marital satisfaction. These behavioral and cognitive processes represent the adaptive processes referred to in the VSA model.

Division of Household Tasks

Economic and work-related stressors comprise a significant proportion of the body of research on stress and marriage (Bradbury et al., 2000). Due to sociocultural changes regarding gender roles and dual employment households, there is a growing body of research focused on the stress that arises from attempts to balance home and work responsibilities. Terms such as role strain, stress contagion, stress spillover, stress crossover, and division of household labor abound in close relationship research (Bolger, DeLongis, Kessler, & Wethington, 1989; Coltrane, 2000; Erickson, 2005; Grote, Clark, & Moore, 2004; Kurdek, 2007; Marks, Huston, Johnson, & MacDermid, 2001; Shulz, Cowan, Cowan, & Brennan, 2004). When both partners are working outside the home, household responsibilities must be renegotiated. The division of household tasks is a specific source of stress that has been shown to affect marital satisfaction. Not only is the amount of sharing housework associated with higher marital satisfaction (Erickson, 1993; Kamp Dush et al., 2008; Orbuch & Eyster, 1997), but the alignment of attitudes and beliefs about division of labor is an important factor, as well (McHale & Crouter, 1992, Perry-Jenkins & Crouter, 1990). These relationships are complicated by gender ideology.

Men who have more egalitarian views about housework tend to have higher marital satisfaction, whereas women with more egalitarian views tend to have lower marital satisfaction (Lye & Biblarz, 1993). These findings highlight the importance of considering division of labor when studying stress and marital satisfaction.

Measurement of Marital Satisfaction

Marital satisfaction is one indicator of marital quality and is defined as the subjective valuing of the relationship, or more simply, how a person feels about the relationship (Hendrick, Dicke, & Hendrick, 1998). Marital satisfaction has been measured in a number of ways, including assessments as short as 3 items (e.g., KMSS; Schumm et al., 1986), as long as 280 items (e.g., MSI; Snyder, 1979), with global assessments (e.g., RAS; Hendrick, 1988), and multidimensional instruments (e.g., DAS; Spanier, 1976 and MAT; Locke & Wallace, 1959).

Researchers have had great difficulty measuring aspects of marital quality accurately, for several reasons. A review of marital research reveals that a number of terms, such as satisfaction, quality, adjustment, success, and happiness have been used interchangeably (Fincham & Beach, 2006; Gottman, 1990). Adjustment measures were touted initially as a more complex view of marriage than what could be provided by a simple satisfaction measure. The definition of adjustment is tautological, however, with items that measure both marital processes and the outcome of those processes (Fincham & Bradbury, 1987; Norton, 1983). Additionally, many relationship satisfaction measures suffer from construct validity issues (partly resulting from the aforementioned lack of consensus on operational definitions), and it is unclear whether the instruments are

measuring what they purport to be measuring (Fincham & Beach, 2006). Similarly, it is important to note that although marital satisfaction and marital stability are strongly associated (Karney & Bradbury, 1995), they are distinct constructs, and the relationship between them is influenced by a variety of factors, such as race (Broman, 2002), gender (Gager & Sanchez, 2003), duration of marriage (White & Booth, 1991), and personality traits (Davila & Bradbury, 2001).

Given these difficulties with valid and accurate measurement of marital satisfaction, a more nuanced view of specific aspects of marital quality is needed. Researchers have advocated for a consensus definition of relationship satisfaction as the subjective, global evaluation of the relationship (Fincham & Beach, 2006; Fincham & Bradbury, 1987; Hendrick, 1988). This definition allows for more conceptual clarity, clear-cut measurement and interpretation, and lowers the risk of spurious findings due to construct invalidity.

Consistent with this definition, the Relationship Assessment Scale (RAS; Hendrick, 1988) was created as a brief, easy-to-administer, global measurement of relationship satisfaction. In addition, it was designed to be useful for both marital and non-marital romantic partnerships. This brief, 7-item measure assesses general satisfaction, regrets about the relationship, love for the partner, problems in the relationship, and the extent to which one's needs are met by the partner, the relationship compares to others, and expectations for the relationship have been met.

Summary

This section included some background information about marital research, an overview of prominent theoretical perspectives on marital quality, a description of the VSA model, a review of empirical research on marital satisfaction, and a discussion about the measurement of marital satisfaction. Due to current marriage and divorce statistics and the physical and psychological implications of happy marriages, a vast amount of research is aimed at uncovering the causes and correlates of marital satisfaction, in order to inform effective prevention and intervention strategies for couples in distress. The VSA model offers an integrative framework of marital quality and stability, suggesting that contributing factors include enduring vulnerabilities, stressful events, and adaptive processes. A wide range of factors have been shown to impact marital satisfaction, including demographic, intrapersonal, interpersonal, and cognitive variables. In addition, situational variables such as stressful events play a significant role in marital relations, particularly those that challenge couples to renegotiate the work-life balance. Measurement of marital satisfaction is challenging, due to the various construct definitions and tautological assessments that include both marital processes and outcomes. The Relationship Assessment Scale was developed in response to the need for a consensus definition and global measurement of marital satisfaction.

Attachment Theory

Attachment theory is the second theoretical foundation of the proposed study. The origins and basic concepts of attachment theory are briefly presented, followed by an overview of attachment in adulthood. The various attachment styles are described, along

with a discussion of how attachment relates to stress and coping styles in adulthood. A review of empirical research on adult attachment, as it relates to the current study, is provided. Finally, this section concludes with a discussion on ways to measure adult attachment.

Basic Concepts of Attachment Theory

Attachment theory, formulated initially by John Bowlby (1969, 1973, 1980), is grounded on the premise that human infants have an innate social orientation and a biologically based need to develop emotional bonds and engage in "attachment behaviors" with their primary caregiver. These attachment behaviors, such as visual tracking, sucking, clinging, crying, physical contact, and protest against separation, evolved presumably through a process of natural selection by maintaining close proximity with caregivers to increase protection from danger. In addition to proximity maintenance, attachment figures provide a safe haven of comfort and support when the infant perceives a threat, and a secure base from which the infant feels safe to explore the immediate environment. Furthermore, separation from the attachment figure is a signal of danger and prompts distress in the infant.

Attachment Styles

Ainsworth and her colleagues (Ainsworth et al., 1978) further developed Bowlby's assertions by measuring individual differences in attachment experiences and behaviors. Through naturalistic observations of mother-child interactions, Ainsworth suggested that certain patterns of infant behavior could help to identify categories of attachment relationships. Ainsworth found three distinct styles of attachment

relationships: secure, avoidant, and anxious ambivalent. Secure attachment is developed through consistent and attentive parenting, exhibited by effective comforting when infants are distressed and calm availability when they are not distressed. Children in secure attachment relationships readily seek comfort from their mothers, are soothed rather easily, and then resume exploration of other activities. Insecure attachments are developed through inconsistent availability and responsiveness (associated with anxious-ambivalent attachment relationships) or a consistent *lack* of availability and responsiveness (associated with avoidant attachment relationships). Children in anxious-ambivalent attachment relationships tend to have inconsistent reactions to their mothers, are difficult to soothe, and hesitant to resume exploration of other activities. Children in avoidant attachment relationships tend to ignore and withdraw from their mothers and distract themselves with other activities (Ainsworth et al., 1978).

Internal Working Models

Bowlby hypothesized that these early experiences contribute to an individual's expectations for the availability and responsiveness of attachment figures. These expectations of availability and responsiveness are incorporated into internal working models of oneself and others. More specifically, internal working models of self refer to beliefs about whether or not one is the type of person others are likely to respond to in a helpful way. Internal working models of others refer to beliefs about whether or someone is the type of person who is likely to respond when I am in need (Bowlby, 1973). These working models impact behavioral, cognitive, and affective processes by providing guidance about what can be expected from others, how to interpret interactions, and how

memories of attachment-related events are stored (Bowlby, 1980). In early childhood, working models are thought to be flexible and open to change if the availability and responsiveness of the caregiver changes. Over time, however, working models tend to become more stable and generalized to other attachment relationships and the social world in general (Collins, Guichard, Ford, & Feeney, 2004). Internal working models are core aspects of one's personality and are carried into adulthood, where they continue influencing perception and behavior in intimate relationships (Collins et al., 2004). Bowlby (1979) believed that internal working models function automatically at an unconscious level and therefore are resistant (but not impossible) to change. He later suggested, however, that impactful experiences with significant others over the lifespan can alter beliefs about their responsiveness and availability. In addition, internal working models and the resulting attachment characteristics can be relationship-specific, based on experiences with particular attachment figures (Bowlby, 1988).

Attachment in Adulthood

Based on the assumption that internal working models are carried into adulthood, attachment theory has become a framework for understanding a broad range of interpersonal behavior and romantic experiences (Collins et al., 2004). By conducting a series of studies examining attachment theory as a framework for conceptualizing love, loneliness, and grief, Hazan and Shaver (1987) extended the premises of childhood attachment theory into the arena of adult relationships. The primary outcomes of these studies supported several of the research hypotheses. First, they found that adults are able to classify themselves as relatively secure, anxious/ambivalent, or avoidant in their

significant romantic relationships. Further, they found that distribution of these styles in adulthood (approximately 56% secure, 25% avoidant, and 19% anxious/ambivalent) are similar to those in childhood research (an average of 62% secure, 23% avoidant, and 15% anxious/ambivalent across childhood attachment studies) (Campos, Barrett, Lamb, Goldsmith, & Stenberg, 1983). Secondly, adults who identify with each of the three attachment styles can be distinguished by the way they describe their romantic relationships.

Secure attachment. Adults with a secure attachment style tend to describe their romantic relationships as happy and trusting. They are able to get close to others rather easily and tend to be comfortable giving and receiving support from their partners. Secure partners expect romantic feelings to ebb and flow throughout the course of a relationship and do not worry excessively about being abandoned. Hazan and Shaver's research indicates that about 56% of adults fall into the secure attachment category (1987). Secure partners tend to describe their relationship experiences more positively, and these relationships tend to last longer (average of 10.02 years) than anxious/ambivalent participants (average of 4.86 years) and avoidant participants (average of 5.97 years).

Avoidant attachment. Adults with an avoidant attachment style tend to be afraid of intimacy and emotional highs and lows. They find it difficult to trust others and are wary of getting too close. Avoidant partners do not usually believe that romantic love lasts or that it is possible to find someone with whom they will allow themselves to fall in love. Avoidant adults comprise about 25% of the population (Hazan & Shaver, 1987).

Anxious-ambivalent attachment. Adults with anxious/ambivalent styles describe love as an obsession, and tend to experience romantic relationships characterized by emotional highs and lows, extreme jealousy, and strong desire for emotional connection (Hazan & Shaver, 1987). Anxious-ambivalent adults desire intimacy and fear rejection above all else (Pietromonaco & Barrett, 2000). These adults tend fall in love easily, but worry that their partners will leave or will not reciprocate their love. About 19% of adults characterize themselves as having an anxious/ambivalent attachment style (Hazan & Shaver, 1987).

These three categories were used for a number of years, and many people continue to refer to attachment "styles" as discrete categories. Continued examination, however, pointed researchers toward a two-dimensional conceptualization of attachment. The avoidance dimension involves the extent to which a person seeks to maintain emotional distance and independence from partners. The anxiety dimension involves the extent to which a person fears rejection and worries that a partner will not be available or responsive in times of need. Secure attachment is indicated by low scores on both dimensions (Shaver & Mikulincer, 2006). When people refer to individuals with secure, anxious, or avoidant attachment, they are referring to the person's relative degree of anxiety or attachment.

Prompted by the work of Hazan and Shaver (1987, 1994), researchers have continued to use attachment theory as a framework for examining the formation, development, maintenance, satisfaction, and stability of close relationships. One of the core assumptions of adult attachment theory is that romantic partners, rather than parental

caregivers, become the primary attachment figures of adults. Therefore, adults tend to look to these romantic attachment figures for the three central functions of attachment relationships: proximity maintenance, safe haven, and secure base. These functions are particularly relevant when the adult is in distress or coping with a stressful situation (Shaver & Mikulincer, 2006).

Adult Attachment and Coping Strategies

Shaver and Mikulincer (2006) provided a detailed description of how attachment security or insecurity relates to coping strategies in adulthood. When a person encounters a threat (perceived or actual), the attachment system is activated and the person responds based on internal working models of the self, the partner, and attachment figures in general. If people have relatively secure attachments (corresponding with internal working models of others as relatively available and responsive), they are likely to respond with security-based strategies of affect regulation. These security-based strategies include optimistic beliefs, self-efficacy, appropriate expression of distress, support seeking, and problem-solving behaviors (Shaver & Mikulincer, 2006).

If, on the other hand, the person encountering a threat has high levels of attachment anxiety, he or she is likely to respond with "hyperactivating strategies" (Cassidy & Kobak, 1988), including an overdependence on the partner, clinging and controlling behaviors, and persistent attempts to solicit attention and support from the partner. In addition, these individuals may experience heightened negative emotions and increased worry and rumination about the perceived threat. Often, the attachment relationship itself is the source of worry and threat, due to the anxiously-attached

person's hypervigilant attention to potential signs of disapproval, lack of interest, or abandonment (Shaver & Mikulincer, 2002).

The third type of coping strategy, used by people with high levels of attachment avoidance, includes "deactivating strategies" (Cassidy & Kobak, 1988), characterized by denial of attachment needs, avoidance of intimacy, and increased emotional and physical distance from others. These strategies are consistent with the internal working models of individuals with avoidant attachment, which include the beliefs that attachment figures are not available or responsive and, therefore, support-seeking behaviors will not be productive in alleviating distress (Mikulincer, 2002).

Empirical Research on Adult Attachment

Adults with more secure attachment appear to fare better than those with anxious or avoidant attachment on a number of outcome variables. For instance, adult attachment has been found to be associated with various aspects of individual well-being, such as general psychological adjustment (Kim, Carver, Deci, & Kasser, 2008; Seiffge-Krenke, 2006), depression (Carnelley, Pietromonaco, & Jaffe, 1994; Marchand, 2004), personality traits (Noftle & Shaver, 2006), burnout (Pines, 2004), affect regulation (Feeney, 1999; Feeney & Ryan, 1994; Mikulincer, 1998), self efficacy (Corcoran & Mallinckrodt, 2000), perspective taking (Corcoran & Mallinckrodt, 2000), and substance use (Kassel, Wardle, & Roberts, 2006). In addition, researchers have demonstrated links between adult attachment and aspects of relational well-being, such as relationship satisfaction (Alexandrov et al., 2005; Banse, 2004; Feeney, 1999; Kane et al., 2007; Meyers & Landsberger, 2002), sexual satisfaction (Birnbaum, Reis, Mikulincer, Gillath, & Orpaz,

2006; Butzer & Campbell, 2008; Davis et al., 2006), conflict resolution behaviors (Campbell, Simpson, Boldry, & Kashy, 2005; Corcoran & Mallinckrodt, 2000; Marchand, 2004; Pistole & Arricale, 2003; Shi, 2003), and coping with relationship stressors (Alexander, Feeney, Hohaus, & Noller, 2001; Curran et al., 2005; Feeney, 2004; Seiffge-Krenke, 2006; Simpson, Rholes, Orina, & Grich, 2002). This section contains a review of empirical findings most relevant to the current study.

Affect Regulation

One factor that has received a great deal of attention in attachment-related research is affect regulation. Consistent with the basic tenets of attachment theory, internal working models contribute to the way individuals respond to stressful situations, including affective responses to stress (Bowlby, 1988; Mikulincer, 1998; Mikulincer, Florian, & Tolmacz, 1990). Secure individuals tend to experience less negative emotion in general (Feeney, 1994) and in romantic relationships (Feeney, 1999; Fuller & Fincham, 1995), while anxious individuals tend to experience the highest frequency *and* intensity of negative emotions (Feeney, 1994, 1999). When secure individuals do experience negative emotions, however, they tend to handle negative emotion more constructively, by acknowledging distress and seeking support (Kobak & Sceery, 1988). This is consistent with working models associated with secure individuals, which are characterized by confidence in the availability and responsiveness of attachment figures.

On the other hand, both anxious and avoidant individuals may suppress their emotions, but for different reasons. Avoidant individuals tend to suppress expression of negative emotion in order to avoid conflict or dependence on others, whereas anxious

individuals may suppress expression of anger or distress, due to fear of the partner's response (particularly rejection or abandonment) (Feeney, 1999). Alternatively, anxious individuals may express their negative emotion in an exaggerated and perhaps overly dramatic manner, in an attempt to obtain the care and support of attachment figures (Kobak & Sceery, 1988). These responses are consistent with internal working models, as avoidant individuals have learned to expect that attachment figures may not be available, and therefore attempts to obtain support may not be successful. Similarly, anxious individuals have experienced inconsistent availability and responsiveness of attachment figures and, therefore, may alternate between strategies due to contradictory expectations of others (Feeney, 1999).

These patterns of affect regulation may serve a mediating function between adult attachment and a number of other outcome variables. For instance, researchers have shown repeatedly that attachment characteristics shape the way individuals appraise, cope with, and adjust to stress (Kotler, Buzwell, Romeo, & Bowland, 1994; Mikulincer & Florian, 1998; Rholes & Simpson, 2004). Individuals with secure attachment tend to positively appraise stressful situations and cope with them in a constructive manner. On the other hand, individuals with anxious attachment tend to overreact to stressors, experience high levels of negative emotionality, and use maladaptive coping behaviors. Individuals with avoidant attachment tend to under-react to stressors, and therefore do not take appropriate advantage of social support. Given these response patterns associated with attachment styles, it is not surprising that attachment insecurity (both anxiety and avoidance) was found to be correlated significantly with burnout (Pines, 2004).

Conflict Resolution

Researchers (Corcoran & Mallinckrodt, 2000; Marchand, 2004; Shi, 2003) have examined the associations between attachment qualities and conflict resolution styles. On the whole, individuals with more secure attachment tend to use more positive and constructive methods of conflict resolution within intimate relationships. More specifically, individuals with secure attachment are more likely to use integrative and compromising conflict styles (Corcoran & Mallinckrodt, 2000; Marchand, 2004; Shi, 2003). Individuals with anxious attachment are more likely to use attacking (Marchand, 2004), dominating (Shi, 2003), avoiding (Corcoran & Mallinckrodt, 2000), and obliging behaviors (Corcoran & Mallinckrodt, 2000; Shi, 2003). Individuals with avoidant attachment are more likely to use avoiding and dominating behaviors, and less compromising, integrating, and obliging behaviors (Corcoran & Mallinckrodt, 2000; Shi, 2003). Although there are slight variations among some of these findings, the general pattern is consistent with the theoretical concept of internal working models. Positive views of self and others (secure attachment) correspond with conflict styles that indicate concern for both self and others (compromising and integrating), while negative views of self and others (insecure attachment) correspond with conflict styles that indicate either concern for self but not others (dominating), concern for others but not self (obliging), or low concern for self and others (avoiding) (Corcoran & Mallinckrodt, 2000; Shi, 2003).

Support and Coping Strategies

In addition to conflictual interactions, internal working models also seem to shape how people respond to other stressful situations within the context of intimate

relationships. Researchers have found evidence of links between attachment style and the use of various coping strategies (Alexander et al., 2001; Curran et al., 2005; Feeney, 2004; Mikulincer, Florian, & Weller, 1993; Ognibene & Collins, 1998; Seiffge-Krenke, 2006; Simpson et al., 2002). For example, Seiffge-Krenke (2006) conducted a longitudinal study to examine relationships between internal attachment models, relationship stressors, psychopathology, and coping behaviors among a sample of 112 German adolescents and young adults. In this study, individuals with more secure attachment tended to use significantly more active coping ($r = .23$, $p < .05$) and internal (cognitive) coping skills ($r = .18$, $p < .05$), and less withdrawal ($r = -.17$, $p < .05$) in response to relationship stressors than insecurely attached individuals. Securely attached individuals also tended to report experiencing less relationship stress than insecurely attached individuals, although these results only approached significance. Consistent with their attachment characteristics, young adults with more anxious/preoccupied attachment exhibited a rather ambivalent approach to coping. These individuals reported using an equal amount of active coping and withdrawal over the seven years of the study.

Ognibene and Collins (1998) also examined the relationships between adult attachment and both coping strategies and perceived social support among a sample of 81 undergraduate psychology students. In this study, participants were asked to describe how they would cope in response to vignettes that portrayed social and achievement-oriented stressors. Consistent with the theoretical assumption that secure attachment is associated with more confidence in the availability and responsiveness of others, secure individuals in this study reported greater social support from family ($r = .24$, $p < .05$) and

from friends (r = .46, p < .001), whereas fearful individuals reported less social support from friends (r = -.44, p < .001). Attachment characteristics also were associated with the coping strategies employed by participants. In this study, a modified version of the Ways of Coping Scale (WOC; Folkman et al., 1986) was used to measure the extent to which participants report using four coping strategies: Social support-seeking, confrontive coping, distancing, and escape-avoidance. Based on partial correlations, securely attached and preoccupied individuals reported the most social support-seeking (r = .33, p < .01 for both). Preoccupied individuals also reported greater use of confrontive coping (r = .22, p < .05) and escape-avoidance (r = .33, p < .01). Based on hierarchical regression analyses, attachment working models were found to be predictive of social support seeking, confrontive coping, and escape-avoidance. More specifically, a positive model of others was associated with seeking support (β = .36, p < .01) and confrontive coping (β = .23, p < .05), whereas a negative model of self was associated with escape-avoidance (β = -.34, p < .01). In summary, these results suggest that, when facing social or achievement-related stressors, secure individuals tend to perceive greater social support, seek out more social support (than avoidant individuals), and respond more actively to the stressor.

Similarly, Simpson, Rholes, Orina, and Grich (2002) examined parental attachment, romantic attachment, support giving and support seeking behaviors among partners in a stressful situation. Participants consisted of 90 dating or married couples, in which at least one partner was recruited from introductory psychology classes at a Texas university. Attachment to parental figures was measured with the Adult Attachment Interview (AAI; Main et al., 1995), and attachment to romantic partners was measured

with the Adult Attachment Questionnaire (AAQ; Simpson, Rholes, & Phillips, 1996). Couples were observed for five minutes while the male partner was waiting to do a stressful task. Trained observers (without knowledge of hypotheses and attachment scores) rated the women on the extent to which they provided emotional support to their partners. In addition, the men were rated on their level of anxiety/distress and the extent to which they sought comfort and support from their partners. Hierarchical regression analyses were used to test the prediction that secure women would provide more support to their partners. This hypothesis was partially supported, such that women's attachment security and men's level of support-seeking had an interaction effect on women's support giving. In other words, more secure women offered more support to their partners, *if* their partners sought it out. According to past research, this pattern of providing care based on expressed need is considered to be optimal (George & Solomon, 1996). Men's attachment characteristics did not significantly predict their support-seeking behavior. In addition, there were no significant results related to anxious/ambivalent attachment for either women or men). The researchers made no hypotheses regarding anxious/ambivalent participants, due to previous contradictory findings. Consistent with their desire for closeness, anxious/ambivalent individuals may want to support their partners, but this desire may be overridden by their mistrust and fear that support will not be reciprocated. Thus, support behaviors may be impacted by factors other than their internal working models (Simpson et al., 2002).

The aforementioned studies provide evidence that adult attachment characteristics are linked in various ways to the types of coping and support-seeking behaviors used in

response to general stressors either within or external to the relationship. Additionally, researchers have focused on the ways that couples cope with particularly stressful transition points, such as the transition to parenthood (Alexander et al., 2001; Curran et al., 2005). Alexander et al. (2001) examined attachment style, parenting strain, self-esteem, social resources, and coping behaviors (divided into three categories: emotion-focused, problem-focused, and support-seeking) among a sample of 92 married couples recruited during the second trimester of their pregnancy. In this study, attachment was assessed with the Attachment Style Questionnaire (ASQ; Feeney, Noller, & Hanrahan, 1994), which uses two subscales to measure relationship anxiety and discomfort with closeness. Coping was assessed with the Ways of Coping Checklist – Revised (WOC-R; Vitaliano et al., 1985), which uses three subscales to measure emotion-focused coping, problem-focused coping, and social support-seeking. The authors of the WOC define problem-focused coping as attempts to manage the source of stress, whereas emotion-focused coping is defined as attempts to regulate stressful emotions (Vitaliano et al., 1985). ANOVAs were used to analyze gender effects, and several significant differences emerged. Husbands were more likely to report discomfort with closeness, whereas wives were more likely to report more social support, problem-focused coping, social support-seeking, and parenting strain.

Structural equation modeling was used to test three proposed models, one for each of the three coping strategies. For wives, attachment anxiety and parenting strain were the strongest direct predictors of emotion-focused coping. In addition, both attachment anxiety and discomfort with closeness had indirect effects on emotion-focused coping,

through social support. Social support also moderated (i.e., buffered) the effect of parenting strain on wives' emotion-focused coping. For husbands, attachment anxiety had a strong indirect effect on emotion-focused coping, through self-esteem and parenting strain. Discomfort with closeness also had an indirect effect on husbands' emotion-focused coping, through self-esteem. In other words, more insecure husbands tended to have lower self-esteem (and greater parenting stress, for anxious husbands), which led to more emotion-focused coping. In addition, some partner effects emerged in this model, such that wives' attachment (both anxiety and discomfort with closeness) had indirect effects on husband's emotion-focused coping, via wives' perceived social support. In the model of social support-seeking, wives' support-seeking was associated negatively with their own discomfort with closeness and positively with husbands' parenting strain. Husband's support-seeking was associated positively with their parenting strain and to wives' discomfort, and negatively to wives' anxiety. In addition, self-esteem moderated (i.e., buffered) the effect of parenting strain on husbands' support-seeking. In the third model, husbands' problem-focused coping was associated negatively with their own attachment anxiety and wives' parenting strain. Anxiety also had an unexpected indirect positive effect on problem-focused coping, through their own parenting strain. In other words, for husbands, attachment anxiety affected problem-focused coping in different ways through two independent paths: wives' parenting strain mediated a negative relationship, whereas own parenting strain mediated a positive relationship. Reliable predictions did not emerge for wives in the problem-focused model (Alexander et al., 2001).

This study provides evidence of the complex relationships among attachment characteristics, parenting strain, coping resources, and coping strategies of couples during the transition to parenthood. In general, it seems that parenting strain was related to greater use of various coping strategies. In addition, when their partners experienced greater stress, wives engaged in more support-seeking and husbands engaged in less problem-focused coping. Attachment characteristics (especially wives' anxiety) had the strongest effects on emotion-focused coping, and these effects were partially mediated by coping resources (self-esteem for men and social support for women) (Alexander et al., 2001).

Similarly, Curran et al. (2005) focused on the transition to parenthood among a sample of 125 couples. These researchers examined longitudinally the effects of adult attachment on the way couples handle the challenges of new parenthood within the marital relationship. Marital maintenance refers to a process by which couples engage with each other to sustain intimacy in the relationship (Braiker & Kelley, 1979). In this study, marital maintenance was measured with the Maintenance scale from the Braiker-Kelley (1979) measure of marital quality. Sample items include "To what extent do you reveal or disclose very intimate facts about yourself to your partner?" and "How much time do you and your partner spend discussing and trying to work out problems between you?" Attachment was measured with the Adult Attachment Interview (AAI; George, Kaplan, & Main, 1985), which is a semi-structured 18-item interview that classifies participants into one of three categories: secure, dismissing, or preoccupied. Data were collected at three time points, including the third trimester of pregnancy, during baby's

eighth month, and baby's twenty-fourth month. Hypotheses regarding the effect of adult attachment on marital maintenance were supported. Dismissing individuals reported significantly less prenatal marital maintenance than secure or preoccupied individuals. Preoccupied individuals exhibited sharper declines in marital maintenance over time than secure or preoccupied individuals.

These studies provide evidence that attachment orientations and corresponding internal working models shape the way people respond to stressful situations within the context of relationships. In general, more secure individuals tend to use more adaptive coping strategies (individually and with their partner), and are more willing to seek and provide support from partners and important others.

Relationship Satisfaction

In addition to the ways that attachment impacts relational interactions (i.e., affect regulation, conflict resolution, and coping strategies), attachment also has been linked with satisfaction in relationships. Researchers have examined associations between attachment qualities and sexual satisfaction among dating and married adults (Birnbaum et al., 2006; Butzer & Campbell, 2008; Davis et al., 2006). Results of these studies are fairly consistent, indicating that individuals higher in anxiety and avoidance reported lower levels of sexual satisfaction (Butzer & Campbell, 2008; Davis et al., 2006), including physical satisfaction, emotional satisfaction, and satisfaction with control of sexual interaction (Davis et al., 2006). In addition, individuals high in anxiety and avoidance indicated strong aversive feelings during intercourse and doubts about being loved (Birnbaum et al., 2006). Also, researchers have examined the effects of partner's

attachment qualities on one's sexual satisfaction and found that partner avoidance (but not partner anxiety) was associated with lower levels of sexual satisfaction (Butzer & Campbell, 2008). A number of variables were found to mediate the relationship between attachment dimensions and sexual satisfaction, including relationship satisfaction, inhibited communication, sexual anxiety, deference to partner (only for anxious individuals), love for partner, and the use of sex as a barometer of relationship quality (Davis et al., 2006).

In addition to its direct effects, attachment has been found to moderate the relationship between sexual satisfaction and relationship quality and behaviors (Birnbaum et al., 2006). In this study, men reported greater relationship enhancing behaviors, fewer relationship damaging behaviors, and better overall relationship quality on days following sexual activity, whereas women reported fewer relationship damaging behaviors on days following sexual activity. In addition, men's attachment anxiety was found to moderate these effects. In other words, more anxious men reported more enhancing behaviors, better relationship quality, and fewer damaging behaviors on days following sex than less anxious men. Attachment qualities also served to moderate partner effects of sexual activity on relationship quality and behaviors. Men with more anxious female partners reported more positive relationship behavior and quality on days following sex, whereas women with more avoidant male partners reported more negative relationship behavior and quality on days following sex (Birnbaum et al., 2006).

In addition to sexual satisfaction, researchers have documented consistent links between attachment dimensions and general relationship satisfaction of dating and

married couples (Banse, 2004; Butzer & Campbell, 2008; Feeney, 1999; Kane et al., 2007; Meyers & Landsberger, 2002). For example, Banse (2004) examined the relationship between adult attachment and relationship satisfaction among a sample of 333 married German couples. Mailing addresses of eligible participants were obtained from the civil register office in Berlin, Germany, and 16.7% of the contacted parties returned completed questionnaire packets. The Relationship Assessment Scale (RAS; Hendrick, 1988) was used to measure marital satisfaction. The RAS is a seven-item scale with internal consistency of $\alpha = .89$ for wives and $\alpha = .84$ for husbands. The Relationship Questionnaire (RQ; Bartholomew & Horowitz, 1991) was used to measure adult attachment. The RQ is a four-item scale that requires participants to rate the extent to which they endorse each of the four attachment descriptions. The test-retest reliability of the RQ over an average of six weeks ranged from .65 to .82 for wives and .52 to .71 for husbands. Zero-order correlations and hierarchical multiple regression analyses were used to test the research hypotheses. In this study, there were no significant gender differences in attachment styles, but relationship satisfaction was slightly higher for husbands than for wives. Secure attachment was related positively to marital satisfaction, while all three insecure attachment types (fearful, preoccupied, and dismissing) were related negatively to marital satisfaction, for both husbands and wives. In addition to these direct actor effects, some partner effects emerged. Preoccupied husbands and preoccupied and dismissing wives tended to have partners with lower relationship satisfaction (Banse, 2004).

Feeney (1999) explored associations between adult attachment and marital satisfaction (and emotional control as a mediator) among a convenience sample of 238 married couples. Seventy-eight percent of contacted respondents completed a questionnaire that included measures of four variables: attachment, emotional control, emotional experience, and marital satisfaction. Attachment was measured with two instruments. First, participants were asked to endorse one of the four attachment descriptions (secure, preoccupied, dismissing, and fearful) on the Relationship Questionnaire (RQ; Bartholomew & Horowitz, 1991). In addition, participants were given a 13-item measure created by Feeney, Noller, and Callan (1994), which consisted of two subscales measuring *Comfort with Closeness* and *Anxiety* on a five-point likert-type scale. Reliability coefficients for this sample were $\alpha = .78$ for Comfort and $\alpha = .87$ for Anxiety. Emotional control was measured with items developed by Watson and Greer (1983) and revised by Feeney (1995), which asked participants to rate the extent to which they bottled up or expressed three negative emotions (anger, sadness, and anxiety) and three positive emotions (happiness, love, and pride). In this study, emotional control was defined as containing or bottling up emotions. Reliability coefficients for each scale exceeded $\alpha = .73$. Emotional experience was measured by asking participants to rate the frequency and intensity of each emotion on a five-point scale. Finally, marital satisfaction was measured with the six-item Quality Marriage Index (Norton, 1983; $\alpha = .95$).

Feeney (1999) reported a number of statistically significant findings. Insecure spouses (low in comfort and high in anxiety) reported greater control of both positive and negative emotions. Participants with partners high in anxiety tended to report greater

control of negative emotions (especially wives with anxious husbands). Anxiety was associated with higher frequency and intensity of negative emotion for both husbands and wives. Secure husbands tended to have wives who reported greater frequency and intensity of positive emotions. Marital satisfaction of both husbands and wives was related negatively to one's own and partner's anxiety and positively to one's own comfort. Additionally, lower marital satisfaction was related to one's own control (containment) of positive emotion and partner's control of negative emotion. For husbands, the relationship between attachment security and marital satisfaction was mediated by emotional control, whereas a mediation effect was not evident for wives. In other words, more securely attached husbands tend to have higher marital satisfaction as a function of being less likely to control or bottle up their emotion. These results provide support for the links between attachment and marital satisfaction, as well as the importance of open expression of emotion in marital relationships (Feeney, 1999).

Similarly, Meyers and Landsberger (2002) also examined links between adult attachment and marital satisfaction. A sample of 73 married women with children, aged 25-48, were recruited for a larger study through advertisements sent home with first-grade children. Attachment was measured using the Adult Attachment Style Questionnaire (Hazan & Shaver, 1987). Participants were asked to rate the self-descriptiveness of each of the three attachment styles (secure, avoidant, and anxious-ambivalent) on a seven-point scale. Previous researchers have found that re-test correlation coefficients for this measure ranged from $\alpha = .49$ to .67 over an eight-month period (Brennan & Shaver, 1995). Psychological distress was measured with the Brief

Symptom Inventory (BSI; Derogatis, 1993), a 53-item self-report questionnaire that measures psychological symptoms across nine dimensions using a five-point scale. The Perceived Social Support Scale (PSSS; Procidano & Heller, 1983) was used to measure the extent to which participants perceive that needs for support, information, and feedback are satisfied by friends and family. Internal reliability of the PSSS for this sample was $\alpha = .92$. Finally, marital satisfaction was measured with the Dyadic Adjustment Scale (DAS; Spanier, 1976). This 32-item scale had a Cronbach's alpha of .96 for this sample, and has been shown to correlate highly with other self-report measures of marital satisfaction (Meyers & Landsberger, 2002).

Correlation analyses corroborated previous findings that marital satisfaction was associated positively with secure attachment ($r = .28$, $p < .05$) and negatively with avoidant ($r = -.35$. $p < .01$ and anxious-ambivalent ($r = -.26$, $p < .05$) attachment. Regression analyses revealed that psychological distress significantly mediated the positive relationship between secure attachment and marital satisfaction, whereas social support significantly mediated the negative relationship between avoidant attachment and marital satisfaction. Also, psychological distress moderated the association between secure attachment and marital satisfaction, such that higher levels of distress weakened the relationship between secure attachment and marital satisfaction. Psychological distress also moderated the association between avoidant attachment and marital satisfaction in the opposite direction, such that higher levels of distress strengthened the relationship. No mediation or moderation effects were found for anxious/ambivalent

attachment. These results underscore the complex mediating and moderating pathways that link adult attachment and marital satisfaction (Meyers & Landsberger, 2002).

In another study on marital satisfaction and attachment, Kane et al. (2007) examined the effects of one partner's attachment style on the other partner's relationship satisfaction, and whether this association was mediated by the quality of perceived care by one's partner. Among an undergraduate sample of 305 heterosexual dating couples, attachment was measured with a shortened version of the Experiences in Close Relationships Scale (ECR; Brennan et al., 1998), using 14 items for each subscale. The avoidance subscale measures one's comfort with closeness and intimacy, and reliability coefficients for this subscale ranged from $\alpha = .87$ to .91. The anxiety subscale measures the amount one worries about rejection, abandonment, or being unloved, and Cronbach's alpha for this subscale ranged from $\alpha = .88$ to .90. Perceived care from one's partner was measured with three scales. The perceived social support subscale from the Quality of Relationships Inventory (QRI; Pierce, Sarason, & Sarason, 1991) was used to measure the extent to which partners were perceived as providing support during times of stress (Cronbach's alpha ranged from $\alpha = .82$ to .85). The researchers created a six-item scale to measure the extent to which partners were perceived to be a responsive and sensitive caregiver (Cronbach's alpha ranged from $\alpha = .85$ to .91). The researchers also created a six-item scale to measure the extent to which partners are perceived to respond negatively when providing support (Cronbach's alpha ranged from $\alpha = .74$ - .84). Finally, relationship satisfaction was measured with a subscale of the Investment Model Scale

(IMS; Rusbult, Martz, & Agnew, 1998) and an earlier version of this scale (Van Lange et al., 1997) with Cronbach's alpha ranging from $\alpha = .85$ to .93.

The Actor-Partner Interdependence Model (APIM; Kenny, Kashy, & Cook, 2006) was used to test the hypotheses that (1) one partner's attachment style would predict the other partner's relationship satisfaction, and (2) that this effect would be mediated by perceptions of the partner's caregiving quality (Kane et al., 2007). This method allowed the researchers to control for the interdependence between partners, test effects of one partner's attachment on the other partner's experiences (partner effect), while controlling for one's own attachment style (actor effect). Before testing the mediation effects, regression analyses indicated significant actor effects, such that men high in avoidance and women high in avoidance or anxiety reported lower relationship satisfaction. Additionally, significant partner effects emerged, such that females with more avoidant partners and males with more anxious partners reported lower relationship satisfaction. Regarding partner caregiving, more secure individuals perceived their partners as more caring and supportive, and this perception was related to greater relationship satisfaction. Similarly, partner effects emerged, such that individuals with highly avoidant partners, and men with highly anxious partners tended to perceive their partners as less caring and supportive. There was some evidence of perceived partner care mediating the actor effects of attachment on relationship satisfaction. Perceived partner care partially mediated the relationship between one's own avoidance and relationship satisfaction. Perceived partner care fully mediated the relationship between females' own anxiety and relationship satisfaction. In terms of partner effects, perceived partner care fully mediated

the relationship between male partner avoidance on female relationship satisfaction, and partially mediated the relationship between female partner anxiety and male relationship satisfaction. These findings suggest that secure individuals may experience greater relationship satisfaction, partly due to the perception that their partners are more supportive (Kane et al., 2007).

In summary, the relationship between attachment and marital satisfaction has been documented consistently in the literature, with attachment impacting both one's own satisfaction and the partner's. There is evidence that the direct and indirect relationships between attachment and marital satisfaction may be different for males versus females, for anxious versus avoidant individuals, and for actor (self) versus partner effects.

Measurement of Attachment

Adult attachment has been measured in a number of different ways, and these measurement strategies include both interviews and self-report measures. The most widely-used and well-known interview instrument is the Adult Attachment Interview (AAI; George et al., 1985). The AAI has been used to demonstrate the intergenerational transmission of attachment patterns, by indicating that parent attachment classifications are associated with child attachment classifications. This interview approach involves a detailed coding system of a subject's narrative of attachment experiences and taps into the person's unconscious processes.

Additionally, however, researchers have measured adult attachment through self-report measures. These measures tend to be used by researchers examining feelings and behaviors in close relationships and tap into the person's conscious self-appraisals. Some

examples of these self-report measures include the Adult Attachment Style Questionnaire (Hazan & Shaver, 1987), Relationship Questionnaire (RQ; Bartholemew & Horowitz, 1991), Adult Attachment Scales (AAS; Collins & Read, 1990), and Relationship Styles Questionnaire (RSQ; Griffin & Bartholemew, 1994). Some of these measures are categorical and classify participants into three or four categories of attachment style, whereas others yield scores on two or more continuous dimensions of attachment characteristics.

In an effort to address the limitations and improve the psychometric properties of self-report measures of adult attachment, Brennan, Clark, and Shaver (1998) conducted a factor analysis of all items used in existing measures. They found that attachment could best be measured along two orthogonal dimensions, attachment anxiety and attachment avoidance. They constructed a new instrument, called the Experiences in Close Relationships (ECR) scale, which consisted of two subscales, one measuring attachment anxiety (fear of separation and abandonment) and attachment avoidance (discomfort with intimacy and dependency). In continued efforts to improve the psychometric properties, the ECR was revised in 2000 (ECR-R; Fraley, Waller, & Brennan, 2000). Additional research supports the two-dimensional factor structure, three week test-retest reliability, and convergent and divergent validity of the ECR-R (Sibley, Fischer, & Liu, 2005).

Summary

The focus of this section was attachment theory, which is the second theoretical foundation of the proposed study. Key concepts of the theory were presented, including the functions of the attachment relationship, the three main attachment styles, and internal

working models. In addition, a review of empirical research was presented on attachment and its links to various aspects of individual and relational well-being. Particular attention was given to the ways attachment impacts coping strategies and relationship satisfaction. Finally, measurement strategies and changes in the conceptualization of adult attachment were discussed, concluding with a description of the Experiences in Close Relationships-Revised instrument.

Stress and Coping

Stress and coping are key constructs in both Attachment Theory and the VSA model. Research presented earlier in the chapter offers evidence that attachment orientations impact stress appraisals and coping responses, and the experience of stress activates attachment seeking behaviors with romantic partners. In addition, stressful experiences and the adaptive (or maladaptive) responses to them have been shown to affect marital interaction, marital satisfaction, and, ultimately, marital stability. Therefore, an overview of stress and coping literature is presented to provide important background information about these constructs.

This section is divided into two main subsections, the first focused on individual stress and the second focused on dyadic stress and coping. In the first subsection, a brief introduction of individual stress and coping theory is presented, followed by an overview of the physical and psychological consequences of stress and ways to measure individual stress. In the second subsection, dyadic stress and coping is discussed, including theoretical foundations, relevant empirical research, and ways to measure dyadic coping.

Individual Stress

Stress has been defined in a number of different ways. Some researchers have used response-based definitions which focus on physiological responses (e.g., increased heart rate, sweating) as indicators of stress (Selye, 1956; Wolfe, 1953). Others have used stimulus-based definitions that focus on particular stimuli, event, or situation (e.g., natural disasters, illness, financial concerns) as sources of stress (Holmes & Rahe, 1967). Lazarus (1966) argued, however, that stress should be defined as a *relationship* between a person and the environment, in which the person appraises the situation as one that represents threat or harm and tests her or his resources. This definition takes into consideration the subjectivity of individual responses to particular stimuli, and distinguishes between stress (i.e., the psychological experience) and a stressor (i.e., any real or imagined event or situation that may be perceived as a threat). The assignment of a certain stimulus as stressful depends on the cognitive appraisal of the individual. In their transactional theory of stress and coping, Lazarus and Folkman (1984) described two types of appraisals. In primary appraisal, the person determines if the event or situation represents harm/loss, threat, or challenge. If so, the person engages in secondary appraisal, in which the person determines whether he or she has the resources to handle the stressor. This cognitive appraisal process represents a crucial link between stress and coping, and helps to explain why the terms *stress* and *coping* are rarely used without the other.

Researchers distinguish between three types of stress: eustress, neustress, and distress (Seaward, 2006). Situations categorized as eustress are enjoyable and tend to

motivate individuals toward an optimal level of health or performance (e.g., falling in love). Neustress refers to any kind of sensory stimulus that is perceived as unimportant or inconsequential (e.g., minor news about happenings in another country). Distress refers to the negative appraisal of an event as threatening to one's mental, physical, emotional, and/or spiritual well-being. The term distress often is abbreviated to the more common term of stress, and refers to the psychological and physiological response to stressors (Seaward, 2006).

There are also different types of stressors. According to the Institute of Medicine, there are four major categories of stressors (Elliott & Eisdorfer, 1982). First, *acute, time-limited stressors* are those that represent a potential, immediate threat, such as skydiving or being pulled over for speeding. Second, *stressor sequences* refer to a series of events that result from an initial event, such as a divorce or death of a loved one. Third, *chronic intermittent stressors* are those that reoccur periodically, such as conflictual visits with in-laws or last-minute business trips. Finally, *chronic stressors* are those that persist for a long period of time, such as disabilities, family conflict, or ongoing job stress. In general, however, stressors are usually categorized as simply acute or chronic, and research indicates that these forms of stress have different effects on individuals. For instance, chronic stress seems to have a greater impact on physical health than acute stress (McEwan & Lasley, 2005).

Individual Consequences of Stress

The numerous physical and psychological consequences of stress have been documented consistently over the past several decades. Researchers have suggested that

stress can lead to illness and disease through an over-responsive autonomic nervous system (elevated stress hormones) or a dysfunctional (suppressed) immune system (e.g., Borysenko, 1987). Some nervous-system related disorders first appear as mild stress-related symptoms, but may result in serious health problems if undetected or untreated. These include bronchial asthma, tension headaches, migraine headaches, temporomandibular joint dysfunction (TMJ), irritable bowel syndrome, and coronary heart disease (Seaward, 2006). Some of the illnesses and diseases resulting from immune dysfunction include the common cold and influenza, allergies, rheumatoid arthritis, ulcers and colitis, and cancer (Seaward, 2006). Other studies linking stress to the suppression of the immune system provide evidence that stress delays wound healing (Kiecolt-Glaser, 1996) accelerates the aging process (Graham, Christian, & Kiecolt-Glaser, 2006), and increases susceptibility to all kinds of infections and autoimmune disease (Kiecolt-Glaser, 2002).

In addition to its physical effects, stress has been shown repeatedly to be associated with various psychological disorders (Tennant, 2006; Turner et al., 1995), substance abuse (Brennan & Moos, 1990), and suicidality (Dean & Range, 1996). Researchers across disciplines have reached the consensus that there is a continuous bidirectional relationship between one's psychological state and her or his social environment (Becker, 2001). In fact, many counseling theories suggest that most mental health problems are the result of environmental stressors, either acute crisis experiences (e.g., rape, abuse, bereavement, or major life changes) or chronic stressors (e.g., financial difficulties, conflict with family or friends, or job-related issues (Sharf, 2004).

Measurement of Stress

Stress has been measured with objective indicators of stressful events and with subjective indicators of one's perception of events. Both approaches have some advantages and disadvantages. Objective measures typically assess the occurrence and frequency of certain events, assumed by most to be stressful events. These events may be weighted, based on the researcher's judgment of which events are more difficult to handle. There are a number of versions of these life-event scales (originally developed by Holmes & Rahe, 1967), which produce a cumulative stress score (Cohen et al., 1983).

The advantages of these objective measures of stress center on their convenience and simplicity. For example, objective measures of stress allow researchers to estimate outcome risks (physical and psychological) associated with these identifiable events. The administration and scoring of these measures are relatively simple. Finally, the use of objective measures reduces bias in the perceptions and reporting of events (Cohen et al., 1983).

Some of these advantages in reliability, however, may also be disadvantages from a validity standpoint, depending on the conceptual definition of stress. A particular event may be perceived in many different ways by different individuals. Objective measures of stress are based on the assumption that the stressor event itself is the cause of pathological outcomes. The transactional view of stress (Lazarus, 1966, 1977), on the other hand, suggests a more complex person-environment interaction, in which one's cognitive appraisal of the event and the person's coping resources determine the response or outcome, rather than the event itself. From this perspective, it is more reasonable to

measure one's appraisal of potentially stressful events than the frequency of such events (Cohen et al., 1983).

Consistent with this view, researchers have attempted to measure perceived stress in a number of ways. Some have modified the life-events scales to allow participants to rate the stressfulness of each experienced event. Although these modifications slightly increased the predictability of these measures, it seems that they still do not capture significant sources of stress that may not be listed on the scale (e.g., chronic stress, vicarious stress from friends and family, worry or concern about future events, and nonspecific worry or anxiety). Others have made efforts to measure subjective responses to specific stressors. This raises additional concerns, however, including the potential confounding of the stressor with the response, misattributions of stress to a particular source, and the assumption that a stress response is only associated with one particular event rather than a combination of factors (such as chronic stress, cumulative stress, or daily hassles) (Cohen et al., 1983).

In response to these measurement difficulties, Cohen, Kamarck, and Mermelstein (1983) developed a global measure of perceived stress, intended to assess the degree to which one's life situations are appraised as stressful. The scale does not inquire about specific events, but rather inquires as to the extent to which participants find their lives to be unpredictable, uncontrollable, and overloading. These three components have been cited consistently as the core aspects of stress experiences (Averill, 1973; Lazarus, 1966, 1977; Seligman, 1975). This instrument is considered to be a better predictor of health outcomes than objective measures (i.e., life event scales), because it is designed to

measure one's cognitive appraisal of one's experiences, rather than the objective occurrence of events. In addition, it is a more global measure that accounts for chronic stress, daily hassles, concern about future events, and other sources of stress that may not be included on a life event scale (Cohen et al., 1983).

Family Stress and Coping

Family and relationship researchers have extended the study of stress and coping beyond the individualistic perspective, to address these concepts within the context of family and social systems (McKenry & Price, 2000). Family development and life course theorists, in particular, have emphasized that stressful events and transitions impact all members of a family group (Carter & McGoldrick, 2005), and are perceived and understood according to family developmental norms (Boss, 1988). In addition, families can be both sources of stress and resources for coping with stress (Pearlin & Turner, 1987).

Reuben Hill developed a model that laid the foundation of family stress research (1949). His ABC-X Model of Family Stress consists of factor A (the stressor event), factor B (the family's resources for dealing with stressor), and factor C (the family's definition or meaning of the event), which interact to produce outcome X (the crisis). McCubbin and Patterson modified Hill's model to include time and cumulative stressors as factors in their Double ABC-X Model of Family Stress and Adaptation (1982, 1983). Boss (1987) further contributed to these models by emphasizing the internal (structural, psychological, and philosophical) and external (heredity, development, economy, history, and culture) contexts which impact the family stress process. More recently, researchers

have begun focusing on the role of daily hassles and chronic strain as significant sources of stress (Derogatis & Coons, 1993; Kanner, Coyne, Schaefer, & Lazarus, 1981). In fact, these microstressors have been shown to predict physical health symptoms better than major life events (Derogatis & Coons, 1993; Gruen, 1993).

In the late 1970's and early 1980's, family researchers began shifting the focus away from the frequency, severity, causes and deleterious outcomes of family stress, and began exploring why some families manage and endure stressors better than others (McCubbin et al., 1980). This included an emerging assumption that stressors over the life course are to be expected, and that more emphasis was needed on the resources and coping processes that families used in response to stressors. Furthermore, this new direction coincided with a general shift from crisis intervention to prevention (McCubbin et al., 1980).

Dyadic Stress and Coping

As described above, the process of coping with stressful events is rarely an isolated endeavor. Couples, in particular, are highly interdependent, and therefore influence each other in their experiences of stressors and problem-solving efforts (Lyons, Mickelson, Sullivan, & Coyne, 1998). Furthermore, the goals of coping within an intimate relationship are to protect the relationship as well as both individuals (Cutrona & Gardner, 2006). Theories of dyadic stress and coping began emerging in the early 1990's to address the unique nature of couple relationships.

Dyadic stress is defined as an event or situation that impacts both members of the couple and prompts joint appraisals, coping behaviors, and use of resources (Bodenmann,

1995; Lyons et al., 1998). Bodenmann (1995, 2005) identified two types of dyadic stress: direct and indirect. Direct dyadic stress refers to situations in which both partners are affected by a common stressor (e.g., financial stress) at the same time and to a similar degree, although perhaps in different ways. Indirect dyadic stress occurs when one partner is initially threatened, but the other partner is impacted via its effect on the behavior and emotional state of the first partner (e.g., job loss of one partner). This indirect effect on the second partner has been termed *crossover* (Bolger et al., 1989).

Dyadic coping has been defined in a number of ways. Earlier researchers conceptualized dyadic coping as methods of individual coping within the context of a marriage (Pearlin & Schooler, 1978). Other researchers viewed dyadic coping as an interaction between each partner's individual coping strategies, and considered the congruence or similarity of such strategies (Barbarin, Hughes, & Chesler, 1985). Still others have developed models, such as relationship-focused coping (Coyne & Smith, 1991) and empathic coping (O'Brien & DeLongis, 1997), in which dyadic coping is defined as individual efforts of each partner that are focused on well-being of each individual and the marital relationship, (Coyne & Smith, 1991; O'Brien & DeLongis, 1997). Finally, in his systemic-transactional model, Bodenmann (1995, 2005) conceptualized dyadic coping as a process in which both partners are involved in a joint effort to manage stressors that concern both partners, either directly or indirectly. An important distinction is made between dyadic coping and social support. Whereas social support refers to a one-way of flow of resources to an identified individual experiencing stress (not necessarily an intimate partner), dyadic coping requires both partners to

appraise the stressor as a threat to their individual or relational well-being and both partners to take at least partial responsibility for coping efforts (Lyons et al., 1998).

Systemic-Transactional Model of Dyadic Coping

Bodenmann (1995, 2005) suggested that stress is managed in one of three ways: individual coping, support-seeking, or dyadic coping. Typically, individual coping is used first, followed by dyadic coping, and then support-seeking behaviors. Bodenmann (1995, 2005) described the two primary objectives of dyadic coping as reducing stress for each partner and enhancing relationship quality. Couples who cope jointly with stressors promote mutual trust, commitment to one another, and the perception of working as a team, which contributes to marital quality and stability (Bodenmann, 2005). In his systemic-transactional model, the dyadic coping process begins when one partner communicates (verbally or nonverbally) his or her appraisal of a stressor to the other partner, who then interprets the messages and offers some type of dyadic coping response. Within the context of dyadic coping theory, stress communication serves both as a trigger for both partners to engage in the coping process and as an additional indicator of dyadic coping. Effective communication of stress appraisals are an important piece of the dyadic coping process. There are several forms of dyadic coping, divided into positive and negative types. Positive forms of dyadic coping include supportive dyadic coping, common dyadic coping, and delegated dyadic coping. Supportive and common dyadic coping can be either problem-focused or emotion-focused. Negative forms of dyadic coping include hostile, ambivalent, and superficial. Each type of dyadic coping is described below.

Supportive dyadic coping. Supportive dyadic coping refers to efforts in which one partner assists the other with his or her coping efforts. This may include problem-focused efforts to resolve the situation, such as offering advice or instrumental help. It may also include emotion-focused efforts to help the other partner manage stress-related emotions, such as empathic listening, expressing confidence in the partner, or helping the partner reframe the situation (Bodenmann, 1995, 2005).

Common dyadic coping. Common dyadic coping involves both partners participating in collaborative ways to manage the stressful situation. This may include problem-focused activities, such as joint problem-solving or direct action. It may also include emotion-focused activities to help each other reduce emotional arousal, such as joint relaxation activities, sharing of feelings, or physical affection (Bodenmann, 1995, 2005).

Delegated dyadic coping. Delegated dyadic coping is most often used to address concrete, problem-oriented stressors. In these situations, one partner may take over responsibilities or tasks typically done by the other partner in order to reduce that partner's stress (Bodenmann,1995, 2005). For instance, the partner who usually picks up the children from school asks the other partner to pick them up during a particularly stressful work week.

Negative dyadic coping. Negative dyadic coping includes hostile, ambivalent, and superficial dyadic coping. Hostile dyadic coping refers to support that is offered, but is accompanied by minimizing, sarcasm, criticism, or scorn. Ambivalent dyadic coping involves support that is offered, but unwillingly or grudgingly (perhaps with the attitude

that the partner should be able to handle it alone). Superficial dyadic coping refers to support that is insincere or artificial, such as asking about the partner's feelings without really listening (Bodenmann, 1995, 2005).

Empirical Research on Dyadic Stress and Coping

With the theoretical guidance of these newly-emerging models of dyadic stress and coping, a number of researchers have examined empirically the process of dyadic coping and how it relates to other variables. Dyadic coping has been linked primarily with marital quality (Badr, 2004; Bodenmann, Charvoz, Widmer, & Bradbury, 2004; Bodenmann & Cina, 2005; Bodenmann et al., 2006) and psychological distress (Bodenmann et al., 2004; Coyne & Smith, 1991; Feldman & Broussard, 2006), with a large proportion of studies focusing on how couples cope with physical illness (Badr, 2004; Coyne, Thompson, & Palmer, 2002; Feldman & Broussard, 2006; Kayser, Watson, & Andrade, 2007; Lyons et al., 1998). In addition, the effects of dyadic coping training on marital outcomes have been examined from a preventive perspective (Bodenmann, 1997; Bodenmann & Shantinath, 2004). To avoid confusion with the different conceptualizations of dyadic coping, only those studies consistent with the system-transactional model will be reviewed here.

Dyadic Coping and Marital Satisfaction

Bodenmann and Cina (2005) examined stress and coping longitudinally among a sample of 62 Swiss couples, recruited through newspaper advertisements. Participants were mailed questionnaire packets that included measures of marital satisfaction, stress level, individual coping, and dyadic coping for each partner to complete separately.

Questionnaire packets were sent again after five years, this time including questions about the couple's relationship status (married, separated, divorced, engaged, etc.). Instrumentation included the Marital Needs Satisfaction Scale (MNS; Stinnet, Collins, & Montgomery, 1970), which measures satisfaction of close relationships on six subscales (love, personal fulfillment, respect, quality of communication, personal growth in the relationship, and integration of previous life experiences). Participants were asked to rate how satisfied they were with each item on a five-point likert-type scale. Cronbach's alpha for the total scale was $\alpha = .88$. Stress level was measured with a questionnaire created by the authors. Participants were asked to rate their current perceived stress on twenty items covering eight domains, such as children, job, family of origin, and close relationships. Individual coping was assessed with the INCOPE-B, which Bodenmann (as cited in Bodenmann et al., 2004) adapted previously from the original COPE (Carver, Scheier, & Weintraub, 1989). Thirty items were used to assess different types of coping across ten subscales. Cronbach's alphas for the subscales ranged from $\alpha = .68$ to .82, and the alpha for the total scale was $\alpha = .78$. Finally, dyadic coping was measured with 18 items from a questionnaire developed previously by Bodenmann (FDCT-N; as cited by Bodenmann et al., 2004). Participants responded to items assessing stress communication, supportive dyadic coping, and common dyadic coping on a 5-point likert-type scale (only positive coping was measured in this study). Cronbach's alpha for the total scale was $\alpha = .92$ in this sample (Bodenmann & Cina, 2005).

At the time of the second data collection (five years after the beginning of the study), there were 19 stable-satisfied couples, 26 stable-distressed couples, and 17

separated or divorced couples. Differences in study variables among these groups were analyzed with MANOVAs; however, only those related to dyadic coping will be presented here. Significant differences in dyadic coping emerged, such that satisfied couples reported significantly more emotion-focused common dyadic coping problem-focused common dyadic coping, emotion-focused supportive dyadic coping, and slightly more problem-focused supportive dyadic coping than the other two groups. No significant differences emerged regarding stress communication and delegated dyadic coping. There were some gender differences in stress communication and problem-focused supportive dyadic coping, such that women reported expressing their stress more and receiving more problem-focused support from their partners. Discriminatory analyses were used to predict group classification (i.e., stable-satisfied, stable-distressed, and separated/divorced) at the end of the study based on stress, individual coping and dyadic coping. Both partner's scores were averaged within each couple in order to have a couple score. These analyses were able to correctly predict group categorization in 62% of the cases. The canonical correlation was $r = .64$, Chi Square (46) = 70.16, $p < .01$. The significant dyadic coping predictors were problem-focused and emotion-focused common dyadic coping, emotion-focused supportive coping, and to a lesser degree, problem-focused supportive coping. In addition, when only stable and separated/divorced couples were examined, the discriminative function analysis was able to correctly predict relationship status 73.3% of the cases. The canonical correlation was $r = .92$, Chi-Square (23) = 30.79, $p < .01$ (Bodenmann & Cina, 2005). These findings support the theoretical assumption that more positive dyadic coping strategies have long-term impacts on both

marital satisfaction and stability. Limitations of the study include a relatively small sample size and the reliance on self-report measures.

In another longitudinal examination of the relationship between dyadic coping and marital quality, Bodenmann, Pihet, and Kayser (2006) collected data over a two-year period. 110 Swiss couples were recruited through newspaper advertisements and 90 (82% of original sample) completed all questionnaires at four time points. The Dyadic Coping Questionnaire (FDCT-N; as cited in Bodenmann et al., 2004) was used to measure dyadic coping and stress communication on six subscales (Stress Communication, Supportive Dyadic Coping by Oneself, Supportive Dyadic Coping of the Partner, Common Dyadic Coping, and Negative Dyadic Coping). Cronbach's alpha for the positive and negative scales was $\alpha = .95$ and .80, respectively. Marital quality was measured with the Partnership Questionnaire (PFB; Hahlweg, 1996), which consists of 30 items and 3 subscales: quarreling ($\alpha = .93$), tenderness ($\alpha = .91$), and togetherness/communication ($\alpha = .88$). Cronbach's alpha for the total scale was $\alpha = .95$.

Hypotheses were tested with a two-level hierarchical linear modeling (HLM) approach, which has been applied to dyadic data (Raudenbush, Brennan, & Barnett, 1995). The first level of analysis uses a regression model to predict within-couple variation in marital quality, and the second level of analysis uses a regression model to determine between-couple variation in marital quality. The parameters of the within-couple model become the dependent variables in the between-couple model. This approach allowed the researchers to account for the interdependence between partners,

while analyzing how dyadic coping predicted both one's own and the partner's marital quality.

On level one (within-couple variation), results indicated that more positive dyadic coping and less negative dyadic coping was associated significantly with higher marital quality (i.e., less quarreling, more tenderness, and more togetherness). More specifically, more stress communication and supportive dyadic coping were associated positively with marital quality, while negative dyadic coping was associated negatively with marital quality. No significant gender differences emerged at this level.

On level two (between-couple variation), nearly all of the dyadic coping subscales were associated significantly with the marital quality subscales. Additionally, some gender differences emerged. Men's dyadic coping, particularly negative dyadic coping, had more significant associations with the marital quality of both spouses. Conversely, wives' dyadic coping had fewer associations with marital quality. Only wives' supportive dyadic coping was linked to their own marital quality.

These findings support the hypotheses that dyadic coping impacts marital quality at both the individual and the couple level. Additionally, these findings support previous research that men's dyadic coping is more important for marital quality than womens' (Gottman, Coan, Carrere, & Swanson, 1998; Schilling, Baucom, Burnett, Allen, & Ragland, 2003). Some of the limitations of the study include a relative homogeneity in terms of socioeconomic status and education of the participants, and the reliance on self-report measures of a dyadic construct,

Both of these studies provide evidence for a consistent link between dyadic coping strategies and marital quality. This area of research is still in the exploratory stage, however, and future studies could broaden understanding of the dyadic coping process by including moderating and mediating variables and other data sources in addition to self-report.

Dyadic Coping and Psychological Well-Being

In addition to its links with marital satisfaction, dyadic coping also can have effects on individual well-being. Bodenmann et al. (2004) examined the relationship between dyadic coping and emotional well-being. Participants included 106 depressed or previously depressed psychiatric patients and 106 matched controls. All participants were married or partnered for at least one year. The questionnaire packet included measures of depression, individual coping, dyadic coping, and marital satisfaction. Depression was measured with the 21-item Beck Depression Inventory (BDI; Beck et al., 1961), which yielded internal consistency of $\alpha = .93$ in this study. Individual coping was measured with the 23-item INCOPE-2, developed previously by Bodenmann (as cited in Bodenmann et al., 2004) and based on the original COPE (Carver et al., 1989). The INCOPE-2 consists of six subscales and had an internal consistency of $\alpha = .72$ in this study. Dyadic coping was measured with Bodenmann's questionnaire (FDCT-N; 2000), including the following scales: Stress Communication ($\alpha = .80$), Supportive Dyadic Coping by Self ($\alpha = .85$), Supportive Dyadic Coping by Partner ($\alpha = .91$), Common Dyadic Coping ($\alpha = .83$), Negative Dyadic Coping by Self ($\alpha = .75$), and Negative Coping by Partner ($\alpha = .78$). Cronbach's alpha for the entire scale was .92 in this study. Finally, marital

satisfaction was measured with the 31-item Partnership Questionnaire (PFB; Hahlweg, 1996), which was used only to ensure that marital quality and depression were not confounded. Based on their BDI scores, participants were placed into 3 groups (apart from the control group): partially remitted (not currently depressed), low depression, and medium to high depression (Bodenmann et al., 2004).

Multivariate analyses revealed significant group differences in dyadic coping, which were clarified with post-hoc analyses. Highly depressed women scored lower than the control group (r = -.81, p <.01) on stress communication, and lower than the control group (r = -.54, p < .05) and partially remitted participants (r = -.72, p < .05) on own supportive dyadic coping. Additionally, male depressed patients scored slightly higher on own negative dyadic coping than the control group (r = .48, p > .10). The findings indicate that the link between coping and depressive symptoms is stronger for individual coping than dyadic coping (Bodenmann et al., 2004). Because individual coping is typically a prerequisite response, it is possible that individual coping skills develop before dyadic coping skills (Bodenmann, 2005). Limitations of this study include its cross-sectional, self-report nature, which precludes any inferences of causality. Longitudinal studies, the inclusion of other potential factors, and additional data sources would improve future research in this area.

Dyadic coping and psychological well-being also was examined by Feldman and Broussard (2006), with a sample of 71 male partners of breast cancer patients. As mentioned previously, much of the research on dyadic coping is focused on how couples cope with physical illness, such as heart disease, cancer, and chronic illness. The purpose

of this study was to examine the effects of dyadic coping strategies on men's adjustment to their partner's illnesses. Participants completed instruments that measured emotional well-being (i.e., feelings of sadness, depression, helplessness, frustration, or anger) illness intrusiveness (i.e., lifestyle disruptions caused by the illness), depression history, and several control variables (i.e., duration of relationship, number of children, educational level, household income, etc.). In addition, dyadic coping was measured with the 61-item Dyadic Coping Scale, which was a newer version of the FDCT-N (as cited in Bodenmann et al., 2004) mentioned above. The DCS consisted of five subscales: dyadic stress communication ($\alpha = .63$), common dyadic coping ($\alpha = .84$), positive dyadic coping ($\alpha = .95$), hostile dyadic coping ($\alpha = .76$), and avoidance of dyadic coping ($\alpha = .73$).

A few significant correlations emerged in the bivariate analyses. Only negative coping was associated with the outcome variables of partner's emotional well-being and perception of illness intrusiveness. Emotional well-being was negatively associated with hostile coping ($r = -.34$, $p < .01$) and avoidance of coping ($r = -.22$, $p < .05$). In addition, perception of illness intrusiveness was associated positively with hostile coping ($r = .44$, $p < .01$). The multivariate analyses revealed only one significant finding: that hostile dyadic coping significantly predicted illness intrusiveness ($\beta = .31$, $p < .05$), accounting for 33% of the variance in illness intrusiveness (Feldman & Broussard, 2006). These findings indicate that negative dyadic coping has a stronger relationship to men's adjustment to their partners' illness than positive dyadic coping. This is consistent with research that suggests the tendency of husbands to exhibit a pervasive negativity and

helplessness response to the frustration of a situation beyond their control (Maguire, 1981).

Similar to the previous study, limitations include its cross-sectional nature, as well as the relative homogeneity of the sample. Additionally, this study was focused only on the adjustment of men to their wives' illness, and does not address crossover effects. These studies provide initial, exploratory evidence of the possible links between dyadic coping and psychological well-being. It appears that individual coping may be an important precursor to dyadic coping, and that, at least for males, negative dyadic coping has a stronger association with psychological adjustment.

Measurement of Dyadic Coping

In 1990, Bodenmann (as cited in Bodenmann et al., 2004) developed an instrument to measure dyadic coping in a manner consistent with his theoretical definition of the construct. The instrument was initially created in German and titled Fragebogen zur Erfassung des Dyadischen Copings (FDCT-N; as cited in Bodenmann et al., 2004). The original 55-item questionnaire was revised several times and translated into English. The most recent version is the Dyadic Coping Inventory (DCI; G. Bodenmann, personal communication, August 11, 2008) which consists of 37 items and 9 subscales. The first four scales are repeated for self and partner (stress communication, supportive dyadic coping, delegated dyadic coping, and negative dyadic coping), and the ninth scale measures common dyadic coping. In addition, there are two items measuring general satisfaction with dyadic coping of the couple. Participants are asked to rate how often the item statements are true, from very rarely to very often on a five point scale.

Summary

This section was divided into two main subsections; the first was focused on individual stress and the second focused on dyadic stress and coping. The first subsection included a brief history and introduction of the stress concept, an overview of the physical and psychological consequences of stress, and description of ways to measure individual stress. The second subsection began with a brief description of important family stress and coping models, as these models informed the development of dyadic stress and coping research. After introducing the concepts and definitions of dyadic stress and coping, the systemic-transactional model of dyadic coping was presented. A review of empirical research on dyadic coping was provided, and the section concluded with a description of the Dyadic Coping Inventory.

Chapter Summary

This chapter has provided a review of the literature related to the proposed study. Specifically, theoretical and empirical literature on the counseling student population, marital satisfaction, attachment theory, individual stress, and dyadic coping has been reviewed and critiqued. This review revealed the following: 1) Graduate students experience a wide range of academic, professional, and personal stressors, which have a significant impact on their intimate relationships; 2) In addition, counseling students face challenges associated with the personal and emotional toll of helping professions; however, researchers have not examined specifically how these challenges affect counseling student marriages; 3) Because counselor burnout and impairment has long-term implications for students, professionals, and clients, counselor educators are

emphasizing the need for the development of coping skills, 4) A wide range of factors have been shown to impact marital satisfaction, including stress (e.g., graduate studies), enduring vulnerabilities (e.g., attachment insecurity), and adaptive processes (e.g., dyadic coping); 5) Internal working models impact the way individuals appraise and respond to stressful situations; 6) Emerging research on dyadic coping reveals promising prevention and intervention implications; and 7) Researchers have linked stress, attachment, and dyadic coping to marital satisfaction, but have not examined this combination of variables in the same study. The proposed study was designed to incorporate these findings and contribute to both counselor education and marital research by examining relationships between perceived stress, attachment dimensions, dyadic coping, and marital satisfaction among a sample of counseling graduate students.

CHAPTER III

METHODOLOGY

A review of the literature related to perceived stress, dyadic coping processes, attachment style and marital satisfaction was presented in Chapter Two. The purpose of this chapter is to provide a detailed description of the methods used in the current study, including hypotheses, participants, procedures, instrumentation, and data analysis. Limitations of the research and changes to the full study based on the pilot study are presented.

Research Questions and Hypotheses

The five major research questions of the current study were introduced in chapter one. The research questions are listed below, along with the corresponding hypotheses.

Research Question 1: Are there significant mean differences between master's and doctoral students in perceived stress level, attachment anxiety, attachment avoidance, total dyadic coping, and marital satisfaction?

Hypothesis 1a: There will be no significant mean difference in perceived stress level between master's and doctoral students.

Hypothesis 1b: There will be no significant mean difference in attachment anxiety between master's and doctoral students.

Hypothesis 1c: There will be no significant mean difference in attachment avoidance between master's and doctoral students.

Hypothesis 1d: There will be no significant mean difference in total dyadic coping between master's and doctoral students.

Hypothesis 1e: There will be no significant mean difference in marital satisfaction between master's and doctoral students.

Research Question 2: What proportion of the variance in marital satisfaction can be uniquely accounted for by perceived stress level, attachment anxiety, attachment avoidance, total dyadic coping, division of household tasks, and satisfaction with division of tasks?

Hypothesis 2: Perceived stress level, attachment anxiety, attachment avoidance, total dyadic coping, division of household tasks, and satisfaction with division of tasks will each account for a significant proportion of the variance in marital satisfaction among counseling trainees.

Research Question 3: To what extent is the relationship between perceived stress and marital satisfaction moderated by total dyadic coping?

*Hypothesis 3a***:** There will be a significant, negative relationship between perceived stress and marital satisfaction.

Hypothesis 3b: The negative relationship between perceived stress and marital satisfaction will be moderated by total dyadic coping. At lower levels of dyadic coping, increased levels of perceived stress will have a greater negative effect on marital satisfaction than at higher levels of dyadic coping.

Research Question 4: To what extent is the relationship between attachment anxiety and marital satisfaction mediated by total dyadic coping?

Hypothesis 4a: There will be a significant, negative relationship between attachment anxiety and marital satisfaction.

Hypothesis 4b: There will be a significant, negative relationship between attachment anxiety and total dyadic coping.

Hypothesis 4c: There will be a significant, positive relationship between total dyadic coping and marital satisfaction.

Hypothesis 4d: The negative relationship between attachment anxiety and marital satisfaction will be partially mediated by total dyadic coping.

Research Question 5: To what extent is the relationship between attachment avoidance and marital satisfaction mediated by total dyadic coping?

Hypothesis 5a: There will be a significant, negative relationship between attachment avoidance and marital satisfaction.

Hypothesis 5b: There will be a significant, negative relationship between attachment avoidance and total dyadic coping.

Hypothesis 5c: There will be a significant, positive relationship between total dyadic coping and marital satisfaction.

Hypothesis 5d: The negative relationship between attachment avoidance and marital satisfaction will be partially mediated by total dyadic coping.

Participants

Participants were recruited from counseling programs accredited by the Council for the Accreditation of Counseling and Related Educational Programs (CACREP). All current graduate students in the selected programs were invited to participate. For this particular study, however, participants in their first semester of the program or not currently married were excluded. An a priori power analysis using the G*Power general power analysis program (Faul, Erdfelder, Lang, & Buchner, 2007) suggested that a sample size of 128 would be the minimum number needed for adequate power (.80) in order to identify a moderate effect size (.25) of the ANOVA analysis. An a priori power analysis for the multiple regression analyses with six predictors suggested that a sample size of 98 would be the minimum number needed for adequate power (.80) in order to identify a moderate effect size (.15) Based on these power analyses, the target sample size was 150 students.

Procedures

After obtaining approval for the study by the Institutional Review Board (IRB), the researcher randomly selected 25 accredited counseling programs that offer both master's and doctoral programs and 15 accredited master's-only counseling programs. The researcher contacted the CACREP liaisons of these programs and asked if they were willing to forward the survey to students over departmental listserves. CACREP liaisons were asked for the following information in order to calculate an estimated response rate: total number of master's and doctoral students and estimated number of married master's and doctoral students. The liaisons who agreed to participate were asked to forward an

email invitation to all students in their departments. Although only data from married participants were analyzed for this study, all current students in the selected departments were invited to participate, and this data will be maintained for future analyses. Therefore, the description of the study in the invitational email was intentionally broad in order to increase general appeal and to minimize self-selection bias. Students were invited to take part in a study examining the stress and coping of counseling graduate students. The email included a brief description of the study, approximate time required to complete the survey, a description of the incentives offered to participants, and a link to the survey.

Students who chose to participate in the survey could then link to it via SurveyMonkey, an online site for electronic survey research. The first page of the survey included informed consent and instructions to answer as honestly as possible. The second page of the survey contained a demographic question about relationship status. Based on responses to this question, participants were directed automatically to the appropriate questionnaires. Students in married or cohabiting relationships were given all of the instruments; students in committed, non-cohabiting relationships were given all of the instruments except the Division of Household Tasks; single, divorced, or widowed students were given only the Perceived Stress Scale, Experiences in Close Relationships-Revised, and the demographic questionnaire. Once the survey was completed, participants were given the opportunity to enter a drawing to win one of four $50 Target gift cards. If they chose to enter the drawing, they were instructed to send an email to the

researcher with “Enter Drawing” in the subject line. No identifying information was attached to the surveys.

Instrumentation

Participants completed an electronic survey that contained several instruments, the combination of which depended on their reported relationship status. These instruments included the Perceived Stress Scale (PSS; Cohen et al., 1983), the Experiences in Close Relationships Questionnaire – Revised (ECR-R; Fraley, Waller, & Brennan, 2000), the Dyadic Coping Inventory (DCI; G. Bodenmann, personal communication, August 11, 2008), the Relationship Assessment Scale (RAS; Hendrick, 1988), the Marital Instability Index – brief form (MII; Booth, Johnson, & Edwards, 1983), a questionnaire addressing the division of household tasks, and a demographic questionnaire. A copy of these instruments is included in Appendix B. The psychometric properties of each instrument are described below.

Perceived Stress Scale

The Perceived Stress Scale (PSS; Cohen et al., 1983) is a 14-item self-report questionnaire, designed to measure the extent to which life situations are appraised as stressful. Participants were asked to rate each item on a five-point likert-type scale, ranging from 0 (never) to 4 (very often). Sample items include “In the last month, how often have you felt nervous and ‘stressed’?” and “In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?” The PSS was normed on both college and community samples, with Cronbach’s alpha reliability coefficients ranging from .84 to .86. Two day test-retest reliability was found to be .85.

The PSS was found to be moderately correlated with related measures of the number of stressful life events (r = .17 to .39) and the impact of certain life events (r = .24 to .49). It is noteworthy that the PSS was more strongly correlated with a scale that measured a more subjective perception of the impact of stressful events than the more objective frequency of stressful events. Also, the PSS was found to be a better predictor of depressive and physical health symptoms than either of the two life event scales (Cohen et al., 1983).

Experiences in Close Relationships – Revised

Attachment style was measured by the Experiences in Close Relationships Questionnaire – Revised (ECR-R; Fraley et al., 2000). This instrument is a 36-item self-report questionnaire consisting of two 18-item subscales. The first subscale measures the avoidance dimension of attachment, with items such as "I find it difficult to allow myself to depend on romantic partners" and "I get uncomfortable when a romantic partner wants to be very close." The second subscale measures the anxiety dimension of attachment, with items such as "I often worry that my partner doesn't really love me" and "I rarely worry about my partner leaving me" (reverse scored). Participants were asked to rate each item on a 7-point likert-type scale, ranging from 1 (strongly disagree) to 7 (strongly agree). Higher mean scores on each subscale represent greater avoidance and anxiety, respectively.

Previous researchers have found evidence of good internal reliability, with Cronbach's alpha ranging from .89 to .94 (Fraley et al., 2000) and three week test-retest reliability coefficients ranging from .90 to .95 (Fraley et al., 2000; Sibley et al., 2005).

Validation studies (Brennan et al., 1998; Fraley et al., 2000; Sibley et al., 2005) have provided evidence that the ECR-R has strong construct validity. The instrument initially was derived from a combination of virtually all existing self-report measures of adult attachment. Principal components analysis was used to construct two 18-item scales, using the items with the strongest correlations to the two higher-order factors (anxiety and avoidance). The ECR-R anxiety subscale corresponds strongly with related measures of anxiety, such as the anxiety and jealousy subscales on Brennan and Shaver's (1995) instrument *(r* = .79 and *r* = .82, respectively), the preoccupation subscale from Feeney's (1994) instrument *(r* = .88), and the anxiety subscale from Simpson's (1990) instrument *(r* = .75). The ECR-R avoidance subscale corresponds well with related measures of avoidance, such as the discomfort with closeness on Carnelley's (1994) instrument *(r* = .86), Carver's (1997) avoidance subscale *(r* = .90), and Rothbard's (1993) avoidance subscale *(r* = .89).

Dyadic Coping Inventory

The Dyadic Coping Inventory (DCI; G. Bodenmann, personal communication, August 11, 2008) was used to measure dyadic coping strategies of participants. The DCI is a self-report instrument consisting of 37 items, with responses arranged on a 5-point likert-type scale. The instrument was developed to measure several aspects of dyadic coping behaviors, such as stress communication, supportive dyadic coping, negative dyadic coping, and common dyadic coping. The instrument measures perceptions of one's own dyadic coping behaviors and perceptions of the partner's dyadic coping

behaviors. Although the instrument contains nine subscales, only the total scale will be used in analyses for this study.

The instrument has shown evidence of very good internal consistency ($\alpha = .92$ for men and .93 for women on the total score) (G. Bodenmann, personal communication, August 11, 2008). Internal consistencies for the subscales measuring the perception of one's own dyadic coping range from .82 to .84, and subscales measuring the perception of the partner's dyadic coping range from .86 to .88 (G. Bodenmann, personal communication, August 11, 2008). Because dyadic coping is a relatively new concept, the DCI is one of the only dyadic coping instruments that has been developed. Validation studies of the DCI have indicated that the instrument is effective at predicting marital quality and conflict communication, and in discriminating between community and clinical samples (G. Bodenmann, personal communication, August 11, 2008; Bodenmann & Cina, 2006).

Relationship Assessment Scale

The Relationship Assessment Scale (RAS; Hendrick, 1988) was used to measure marital satisfaction. This brief, 7-item measure assesses general satisfaction, regrets about the relationship, love for the partner, problems in the relationship, and the extent to which one's needs are met by the partner, the relationship compares to others, and expectations for the relationship have been met. The following two items were reverse scored: "How often do you wish you hadn't gotten into this relationship?" and "How many problems are there in your relationship?" Participants were asked to rate each item on a five-point likert-type scale.

The RAS has shown evidence of good internal consistency (α = .86) and six week test-retest reliability (*r* =.85; Hendrick, 1988). The RAS has been shown to be correlated with other established relationship satisfaction measures, such as the Dyadic Adjustment Scale (*r* = .80 - .88; DAS; Spanier, 1976) and the Kansas Marital Satisfaction Scale (*r* = .64 - .74; KMSS; Schumm et al., 1986). The RAS has exhibited consistency across samples of Anglo, bicultural, and Hispanic-oriented couples (Contreras, Hendrick, & Hendrick, 1996). The RAS also has been effective in distinguishing between clinical and non-clinical participants (Hendrick et al., 1998), and between dating couples and couples who have broken up (Hendrick, 1988).

Marital Instability Index – Brief Form

An abbreviated form of the Marital Instability Index (MII; Booth, Johnson, & Edwards, 1983) was used to measure a couple's propensity to dissolve an existing marriage. This definition of marital instability includes one's thoughts and feelings about the state of the marriage, and actions that have been taken in response to those thoughts and feelings. The brief form of the MII consisted of five items, including "Has the thought of getting a divorce or separation crossed your mind?" and "Have you or your partner seriously suggested the idea of divorce?" Participants were asked to report the extent to which the statements are true using the following scale: 1 = never, 2 = occasionally, 3 = often, 4 = very often. These items were selected for the abbreviated version because they were shown to be the best predictors of the full scale. Reliability for this measure was established in a validity study with a national random sample of 2,034

married men and women under age 55. The alpha coefficient for the brief form in the validation study was $\alpha = .75$ (Booth et al., 1983).

Division of Household Tasks

A questionnaire created by the researcher was used to measure the way participants and their spouses manage household tasks. The questionnaire was adapted from similar measures used by Erickson (2005) and Kurdek (2007). The questionnaire consists of six items, five of which assess the division of labor in certain categories and one that assesses the participant's satisfaction with this arrangement. Participants were asked to consider the management of the following tasks: cooking and planning meals, housecleaning (such as dusting, vacuuming, and cleaning the bathroom), shopping for groceries and household goods, cleaning up after meals (including the dishes), and laundry activities (including washing and ironing). Participants were asked to rate who typically performs each of these tasks on a 5-point likert-type scale, ranging from 1 (done most of the time by my partner) to 5 (done most of the time by me). The five tasks are consistent with previous research that has identified these as the most non-discretionary, routine, and time-consuming tasks (Coltrane, 2000; Erickson, 2005). The final question prompted respondents to rate their overall satisfaction with the division of household tasks in the relationship (1 = completely dissatisfied to 5 = completely satisfied). This final question will be referred to as the Labor Satisfaction subscale. Because these two parts of the instrument are measuring different constructs (i.e., actual division of labor versus satisfaction) and are scored differently, they are kept separate in the analyses.

Demographic Questionnaire

A questionnaire created by the researcher was used to collect demographic data, including age, gender, ethnicity, years married, first marriage, number of children, spouse employment status, spouse education level, spouse student status, household income, student level (master's or doctoral program), and student status (part-time or full-time). In addition, the demographics questionnaire included the following two open-ended questions:

- *What have been the most significant stressors on your marriage during your time in graduate school?*
- *What have been the most important and/or effective coping strategies you and your spouse have used during this time?*

These open-ended questions were not analyzed formally for the dissertation, but may be analyzed later for heuristic purposes to inform future research.

Data Analysis

After completion of the data collection period, all results were entered into SPSS 16.0 for Windows (SPSS, Inc., 2005) for data analysis. Descriptive statistics, examination of missing data, and reliability analyses were run for all variables prior to analyzing data specific to the research questions. A description of hypotheses and analyses are located in Table 1.

Research Question 1 (Are there significant mean differences between master's and doctoral students in perceived stress level, attachment anxiety, attachment avoidance, dyadic coping, and marital satisfaction?) was analyzed using a multivariate one-way

analysis of variance (MANOVA) This analysis assessed for main effects of student level (master's vs. doctoral) on the five dependent variables.

Research Question 2 (What proportion of the variance in marital satisfaction can be accounted for by perceived stress level, attachment anxiety, attachment avoidance, dyadic coping, division of household tasks, and satisfaction with division of tasks?) was analyzed using a multiple regression analysis. Predictor variables are perceived stress level, anxiety score, avoidance score, dyadic coping total score, division of household tasks score, and satisfaction with division of tasks score. This analysis assessed for the extent to which this combination of predictor variables contributes to the variance in marital satisfaction. Bivariate and partial correlations were computed to determine the relative strength of the individual predictors.

Research Question 3 (To what extent is the relationship between perceived stress and marital satisfaction moderated by total dyadic coping?) was analyzed using a multiple regression analysis. Perceived stress was the predictor variable, marital satisfaction was the criterion variable, and dyadic coping (total scale score) was the moderating variable. In order to reduce the risk of multicollinearity, deviation scores (also called centered variables) were created for perceived stress and dyadic coping before running the regression analysis. The interaction term (perceived stress X total dyadic coping) was included in the regression along with the two centered predictors. This analysis provided information about the amount of variance in marital satisfaction that is uniquely predicted by the interaction of perceived stress and dyadic coping.

Research Question 4 (To what extent is the relationship between attachment anxiety and marital satisfaction mediated by dyadic coping?) was analyzed using a mediating path analysis (Baron & Kenny, 1986; Howell, 2002). First, in order to test the conditions for mediation outlined by Baron and Kenny (1986), correlation analyses were run to confirm that there were significant relationships between the independent variable and the mediator (attachment anxiety and dyadic coping), between the mediator and the dependent variable (dyadic coping and marital satisfaction), and the independent variable and the dependent variable (attachment anxiety and marital satisfaction). Once these three paths were found to be individually significant, both attachment anxiety and dyadic coping were entered as predictors of marital satisfaction in a multiple regression analysis. Regression analyses were run, first with attachment anxiety as the sole predictor of marital satisfaction, and then with dyadic coping added. These two models were compared and follow-up analyses were conducted to determine if the mediating pathway was significant (Sobel, 1982).

Research Question 5 (To what extent is the relationship between attachment avoidance and marital satisfaction mediated by total dyadic coping?) was analyzed using the same mediating path analysis procedure described in Research Question 4, substituting avoidance for anxiety.

Table 1

Hypotheses and Data Analyses

Hypotheses	***IVs***	***DVs***	***Analyses***
Hypothesis 1: There will be no significant mean differences between master's and doctoral students in perceived stress level, attachment anxiety attachment avoidance, dyadic coping, and marital satisfaction.	Student level	Perceived stress level Attachment anxiety Attachment avoidance Dyadic coping Marital Satisfaction	One-Way MANOVA
Hypothesis 2: Perceived stress level, attachment anxiety, attachment avoidance, dyadic coping, division of household tasks, and satisfaction with tasks will each account for a significant portion of the variance in marital satisfaction.	<u>Predictors:</u> Perceived stress level Attachment anxiety Attachment avoidance Dyadic coping Division of household tasks Satisfaction with tasks	Marital Satisfaction	Multiple Regression
Hypothesis 3: The relationship between perceived stress and marital satisfaction will be moderated by dyadic coping.	<u>Predictor:</u> Perceived stress level <u>Moderator:</u> Dyadic coping	Marital Satisfaction	Multiple Regression
Hypothesis 4: The relationship between attachment anxiety and marital satisfaction will be partially mediated by dyadic coping.	<u>Predictor:</u> Attachment anxiety <u>Mediator:</u> Dyadic coping	Marital Satisfaction	Mediating Path Analysis
Hypothesis 5: The relationship between attachment avoidance and marital satisfaction will be partially mediated by dyadic coping.	<u>Predictor:</u> Attachment avoidance <u>Mediator:</u> Dyadic coping	Marital Satisfaction	Mediating Path Analysis

Pilot Study

A pilot study was conducted to field test the survey materials and data collection procedures. The pilot study was used to determine if any changes were necessary to strengthen the full study. The full methodology and results of the pilot study can be found in Appendix C. Prior to conducting the pilot study, a preliminary proposal meeting was held with all members of the dissertation committee to discuss the methodology of the study. The following section provides an overview of the feedback provided from dissertation committee members in the preliminary proposal meeting and from pilot study participants, and how their suggestions have informed the larger study.

Revisions Based on Preliminary Proposal

Based on feedback from dissertation committee members, a few changes were made to the full study. First, the initial plan was to test for gender differences among the study variables. Due to the predominance of women in counseling graduate programs and the expected difficulty of obtaining a sufficient sample of men, it was determined that gender would be removed from the analyses. Secondly, a brief measure of division of household tasks was added to the survey, due to its relevance to both stress and marital satisfaction.

Revisions Based on Pilot Study

Some minor revisions resulted from the pilot study. First, pilot study participants took an average of 20 minutes rather than 30 minutes to complete the survey, so the estimated time was adjusted accordingly on the email invitation. Secondly, one participant commented about the unique dynamic that may exist if the partner is a current

graduate student as well. This prompted the addition of an item addressing partner student status. Thirdly, although a measure of division of household tasks had been added to the survey, it had not been addressed in the research questions and data analyses. Therefore, this variable was added to research question 2 and the corresponding regression analysis. Finally, discussion arose regarding the fluctuating nature of marital satisfaction and the potential benefits of including a supplemental indicator of the state of each participant's marriage. Therefore, a brief measure of marital instability was included in the full study. Although this variable was not added to the research questions, for heuristic purposes Research Question 2 was replicated with marital instability as the dependent variable.

CHAPTER IV

RESULTS

The current study was designed to assess how perceived stress, adult attachment, and dyadic coping impact the marital satisfaction of counseling graduate students. In this chapter, the results of the data analyses are presented. First, demographics of the obtained sample are described. Next, preliminary analyses are presented, including reliability analyses of the instruments and descriptive statistics of study variables. Finally, the results of analyses related to each research hypothesis are provided.

Description of the Sample

Participants were recruited from CACREP-accredited counseling programs across the United States. The researcher randomly selected 15 master's-only programs and 30 programs that contained both master's and doctoral programs. CACREP liaisons for these programs were sent a brief description of the study and asked if they would be willing to forward the survey to their student listservs. Of the 45 programs contacted, liaisons from 7 master's-only programs and 16 master's and doctoral programs agreed to distribute the survey.

For the purposes of this study, only married participants were analyzed. Based on rough estimates provided by the program liaisons, approximately 3,200 currently enrolled students in the 23 participating programs received an email invitation to participate in the survey, and approximately 1,200 of these students were married. Of the 491 total

counseling graduate students who responded to the survey, 209 were married, for a total response rate of 15.3%, and a married response rate of 17.4%. Of the married respondents, 10 did not complete the entire survey and 8 were in the first semester of their program. Therefore, a total of 191 surveys were included in the data analyses. Based on power analyses, the minimum number of participants needed for adequate power to detect moderate effect sizes in the data analyses was 128, so the sample size was considered sufficient in this regard.

Demographic data were collected, including age, gender, ethnicity, year in program, student status (i.e., full or part-time), and income. Additionally, relationship data were collected, including years married, prior marriages, number of children in the home, spousal employment status, spousal educational level, and spousal student status (see Appendix B for full demographic questionnaire). Demographics were calculated for the total sample, and the results are summarized in Tables 2 and 3.

The average age of participants was 34.8 (*SD* = 9.76) and ages ranged from 22 to 60. The majority of participants were female (167; 87.4%). Whereas the majority of participants identified themselves as Caucasian (*n* = 162, 84.8%), others identified as African-American (*n* = 6, 3.1%), Asian (*n* = 6, 3.1%), Latino/a (*n* = 8, 4.2%), and other (*n* = 7, 3.7%). Most of those in the "other" category identified themselves as multiracial. One hundred forty-six participants (76.4%) were enrolled in master's programs, and forty-three (22.5%) were enrolled in doctoral programs. Participants were fairly evenly divided between part-time students (*n* = 88, 46.1%) and full-time students (*n* = 101, 52.9%). In terms of relationship demographics, married participants indicated that they

had been married an average of 11.61 years (*SD* = 8.75), and nearly all participants were in their first marriage (n = 173, 90.6%). The average number of children in the home was 0.8 (*SD* = 1.08).

Table 2

Demographic Description of the Full Study Sample (N = 191)

Variable		Mean	SD	Range	N	%
Age:		34.8	9.76	22 – 60	186	97.4%
	Did not answer				5	2.6%
Sex:	Female				167	87.4%
	Male				22	11.5%
	Did not answer				2	1.0%
Race:	African American				6	3.1%
	Asian				6	3.1%
	Caucasian				162	84.8%
	Latino/a				8	4.2%
	Other, please specify				7	3.7%
	Did not answer				2	1.0%
Degree program:	Master's				146	76.4%
	Doctoral				43	22.5%
	Did not answer				2	1.0%
Degree year:	First year				56	29.3%
	Second year				61	31.9%
	Third year				44	23.0%
	Fourth year				28	14.7%
	Did not answer				2	1.0%
Begun dissertation: (If PhD)	Yes				20	10.5%
	No				23	12.0%
	N/A (master's)				146	76.4%
	Did not answer				2	1.0%
Part or Full Time Status:	Part-time student				88	46.1%
	Full-time student				101	52.9%
	Did not answer				2	1.0%

Table 2 (Continued)

Demographic Description of the Full Study Sample (N=191)

Variable		Mean	SD	Range	n	%
Years Married:		11.61	8.75	1 - 43	190	99.5%
	Did not answer				1	0.5%
Number of children:		.804	1.076	0 - 5	189	99.0%
	Did not answer				2	1.0%
First marriage:	Yes				173	90.6%
	No				17	8.9%
	Did not answer				1	0.5%
Household income:	Less than 25,000				14	7.3%
	25,000 - 49,999				35	18.3%
	50,000 - 74,999				61	31.9%
	75,000 - 99,999				31	16.2%
	100,000 or more				48	25.1%
	Did not answer				2	1.0%
Partner Education:	HS diploma / GED				13	6.8%
	Some college				17	8.9%
	Associate's degree				12	6.3%
	Bachelor's degree				77	40.3%
	Master's degree				48	25.1%
	Doctoral degree				10	5.2%
	Other, please specify				13	6.8%
	Did not answer				1	0.5%
Partner Student Status:	Yes				33	17.3%
	No				156	81.7%
	Did not answer				2	1.0%

Descriptive Statistics of Instrumentation

Descriptive statistics were used to examine the variance that existed in participant responses. Ranges, means and standard deviations were calculated for all scales and subscales administered in the study. These values are presented in Table 3. Means and standard deviations obtained in this study were compared to previous norms, and the results were found to be within a comparable range of previously published descriptive statistics.

Table 3

Sample Score Ranges, Means, and Standard Deviations (N = 191)

Instrument	Possible Range	Sample Range	Sample Mean	Sample SD
Perceived Stress Scale	0 - 56	3 - 47	26.35	7.59
ECR-R Attachment Avoidance Scale	18 - 126	18 - 111	39.25	18.32
ECR-R Attachment Anxiety Scale	18 - 126	18 - 95	42.65	16.13
Dyadic Coping Scale	35 - 175	67 - 135	99.98	13.82
Relationship Assessment Scale	7 - 35	10 - 35	28.16	6.25
Division of Household Tasks	5 - 25	6 - 25	17.80	4.11
Satisfaction with Division of Tasks	1 - 5	1 - 5	3.56	1.08
Marital Instability Index	5 - 20	5 - 18	7.24	2.40

Reliability of Instrumentation

Cronbach's alpha coefficients were computed as measures of internal consistency for all instruments used in the study to provide evidence of reliability for this sample. The coefficients for each scale or subscale are presented in Table 4, along with previously published coefficients for each measure. Estimates of internal consistency ranged from .72 to .95, with only one estimate falling below .80. The general consensus in social

science research is that instrument reliability of .70 is adequate, and .80 or greater is desirable (Heppner, Kivlighan, & Wampold, 1999). Using this standard, all scales met or exceeded acceptable alpha levels for social science research.

Table 4

Instrument Scale Reliabilities

Instrument	# of items	α in current sample	α in previous studies
Perceived Stress Scale	14	.89	.84 - .86
Experiences in Close Relationships - Revised	36	.95	.89 - .94
Attachment Anxiety Scale	18	.90	.93 - .94
Attachment Avoidance Scale	18	.95	.91 - .94
Dyadic Coping Scale	35	.94	.92 - .93
Relationship Assessment Scale	7	.94	.86
Division of Household Tasks	5	.72	-
Satisfaction with Tasks	1	-	-
Marital Instability Index	5	.86	.75

Descriptive Analyses

Pearson Product Moment Correlations were calculated among the study variables and these correlations are presented in Table 5. This correlation matrix includes the primary study variables and those variables used only in follow-up analyses. Statistically significant correlations existed between virtually all study variables. The sole exception to this was perceived stress, which did not correlate significantly with either marital instability or division of household tasks.

Table 5

Pearson Product Moment Correlations

Variables	Marital Satisfaction	Perceived Stress	Attachment Anxiety	Attachment Avoidance	Dyadic Coping	Marital Instability	Division of Labor	Satisfaction with Labor
Marital Satisfaction	(.94)							
Perceived Stress	-.15*	(.89)						
Attachment Anxiety	-.57**	.39**	(.90)					
Attachment Avoidance	-.74**	.19*	.56**	(.95)				
Dyadic Coping	.77**	-.14*	-.53**	-.73**	(.94)			
Marital Instability	-.75**	.09	.50**	.52**	-.55**	(.86)		
Division of Labor	-.29**	.08	.21**	.34**	-.21**	.28**	(.72)	
Satisfaction with Labor	.44**	-.19**	-.31**	-.42**	.41**	-.35**	-.41**	-

Instrument reliabilities are placed along the diagonal in parentheses
*Significant at the $p < .05$ level
**Significant at the $p < .01$ level

Hypothesis Testing

The purpose of this study was to examine factors that impact the marital satisfaction of counseling graduate students. Five research questions and the corresponding hypotheses were examined. The results of the statistical analyses used to examine these hypotheses are presented below.

Research Question 1 / Hypotheses 1a – 1e

Research Question 1 was aimed at assessing significant mean differences between master's and doctoral students in perceived stress level, attachment anxiety, attachment avoidance, total dyadic coping, and marital satisfaction. A one-way MANOVA was used to assess for main effects of degree program on each of the five variables. The results of this MANOVA are provided in Table 6. Hypotheses 1a, 1b, 1c, 1d, and 1e suggested that there would be no significant mean differences in the five main study variables based on degree program. Consistent with these hypotheses, no significant mean differences were found ($F(5, 183) = .87$, $p > .05$, $\eta^2 = .02$). The results of this MANOVA are provided in Table 6, and descriptive statistics for both groups are provided in Table 7.

Table 6

MANOVA: Main Effects of Degree Program

	Value	F	Hyp df	Error df	η^2
Wilks' Lambda	.977	.87	5	183	.02

*Significant at the $p < .05$

Table 7

Descriptive Statistics by Degree Program

	Master's (n = 146)		Doctoral (n = 43)	
	Mean	**SD**	**Mean**	**SD**
Perceived Stress	26.06	7.78	27.26	7.14
Anxiety	43.09	16.79	41.21	14.17
Avoidance	38.95	16.96	40.93	22.62
Dyadic Coping	100.30	13.42	98.67	15.43
Marital Satisfaction	28.27	6.19	27.56	6.51

Research Question 2 / Hypothesis 2

Research Question 2 was aimed at assessing the proportion of variance in marital satisfaction that could be uniquely accounted for by perceived stress level, attachment anxiety, attachment avoidance, total dyadic coping, division of household tasks, and satisfaction with division of tasks. An ordinary least squares regression analysis was used to test the hypothesis that each of these variables would significantly predict marital satisfaction. When all six variables were entered into the regression equation, attachment avoidance (β = -.31, t = -4.68, p < .01), attachment anxiety (β = -.17, t = -3.07, p < .01), and dyadic coping (β = .42, t = 6.60, p < .01) accounted for a significant proportion of the variance, but perceived stress, division of household tasks, and satisfaction with division of tasks did not. Thus, Hypothesis 2 was partially supported. Together, these variables accounted for 67% of the variance in marital satisfaction. The results of this multiple regression analysis are presented in Table 8.

Table 8

Multiple Regression: Predictors of Marital Satisfaction

Variable	Adj. R^2	SE	Stand. β	t	Zero-order	Partial
Model summary	.67					
Perceived Stress		.04	.06	1.25	-.15	.09
Attachment Avoidance		.02	-.31	-4.68*	-.75	-.33
Attachment Anxiety		.02	-.17	-3.07*	-.57	-.22
Dyadic Coping		.03	.42	6.60*	.77	.44
Division of Household Tasks		.07	-.03	-.60	-.29	-.04
Satisfaction with Tasks		.28	.09	1.86	.44	.14

*Significant at the $p < .01$

Research Question 3 / Hypotheses 3a – 3b

Research Question 3 examined the extent to which dyadic coping moderated the relationship between perceived stress and marital satisfaction. In order to test for moderation, the base Hypothesis 3a must first be addressed. A correlation analysis confirmed that there was a significant, but modest, negative relationship ($r = -.15$, $p < .05$) between perceived stress and marital satisfaction. The correlation analysis also revealed that dyadic coping had a much stronger correlation with marital satisfaction than did perceived stress, suggesting that dyadic coping may be a direct predictor rather than a moderator.

Hypothesis 3b suggested that the negative relationship between perceived stress and marital satisfaction would be moderated by total dyadic coping. Given the modest relationship between perceived stress and marital satisfaction, however, it was anticipated that this hypothesis would not be supported. The interaction term was created by first converting perceived stress and dyadic coping total scores to z-scores (zPSS and zDCI),

and using these z-score variables to compute the interaction term (zPSS x zDCI). This approach reduces the risk of multicollinearity by minimizing the high correlation of the predictor variables with the new interaction variable (Todman & Dugard, 2007). The centered variables were used only to create the interaction term; uncentered variables were used as direct predictors. Hypothesis 3b was not supported, because the interaction term was not a significant predictor of marital satisfaction ($\beta = .04$, $t = .78$, $p > .05$). In fact, perceived stress did not emerge as a significant predictor of marital satisfaction. The results of the multiple regression analysis used to test Hypothesis 3b are presented in Table 9.

Table 9

Multiple Regression: Dyadic Coping as a Moderator of Perceived Stress and Marital Satisfaction

	Adj. R^2	Std. Error	β	t
Model Summary	.58			
Stress		.04	-.04	-.79
Dyadic Coping		.02	.77	15.97*
Stress X Dyadic Coping		.25	.04	.78

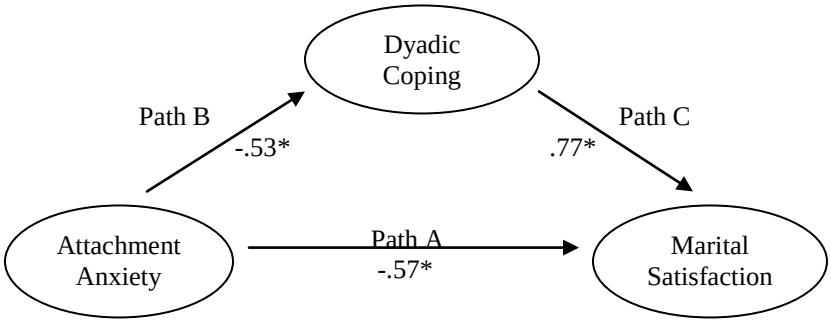
*Significant at the $p < .01$

Research Question 4 / Hypotheses 4a – 4d

Research Question 4 examined whether the relationship between attachment anxiety and marital satisfaction was partially mediated by dyadic coping. In order to test for mediation, three base hypotheses must be supported. Correlation analyses confirmed that there was a significant, negative relationship between attachment anxiety and marital satisfaction (Hypothesis 4a), a significant, negative relationship between attachment

anxiety and dyadic coping (Hypothesis 4b), and a significant, positive relationship between dyadic coping and marital satisfaction (Hypothesis 4c). Thus, these base hypotheses were all supported. The hypothesized mediation model is pictured in Figure 4.

Figure 4. Hypothesized Mediation Model with Attachment Anxiety



Values shown are Correlation Coefficients (*r*)
*Significant at the p < .01

To test Hypothesis 4d, multiple regression analyses were run, first with attachment anxiety as the sole predictor of marital satisfaction, and then adding dyadic coping. When dyadic coping and attachment anxiety were used simultaneously to predict marital satisfaction, the significant direct path ($\beta = -.57$, $t = -9.64$, $p < .01$) between attachment anxiety and marital satisfaction was greatly reduced ($\beta = -.23$, $t = -4.40$, $p < .01$), indicating that dyadic coping served a partially mediating function. Although anxiety was still a significant predictor, the semi-partial correlation between anxiety and marital satisfaction was -.20, whereas the zero-order correlation between anxiety and marital satisfaction was -.57. The results of the mediation analyses associated with Research Question 4 are presented in Table 10.

Because the direct path between attachment anxiety and marital satisfaction remained significant, follow-up analyses suggested by Sobel (1982) were conducted to determine whether the reduction in the size of the coefficient associated with this relationship was significant. These analyses confirmed that this reduction was indeed significant, indicating that the entire mediating pathway from anxiety to dyadic coping to marital satisfaction was significant (β = -.34, t = -6.96, p < .01). Thus, Hypothesis 4d was supported. The results of these follow-up analyses are presented in Table 11.

Table 10

Multiple Regression: Dyadic Coping as a Mediator of Attachment Anxiety and Marital Satisfaction

Model	**Adj. R^2**	**Variable**	**Std. Error**	**β**	**t**	**Zero-order**	**Part**
1	.326	Anxiety	.02	-.57	-9.64*	-.57	-.57
2	.620	Anxiety	.02	-.23	-4.40*	-.57	-.20
		Dyadic Coping	.02	.64	12.14*	.77	.54

Dep. Variable = Marital Satisfaction
*Significant at the p < .01

Table 11

Sobel's Follow-Up Analyses: Regression Coefficients for Mediating Pathway

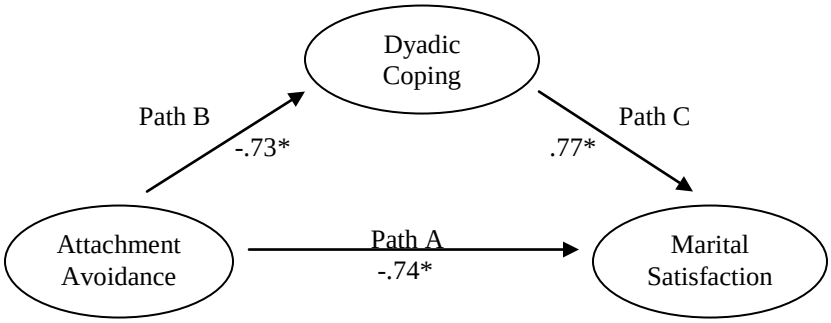
Path B Anxiety to Dyadic Coping	**Path C** Dyadic Coping to Marital Satisfaction	**Full Path**
β = -.53	β = .64	β = -.34
s = .06	*s* = .05	*s* = .05
t = -8.65*	*t* = 12.14*	*t* = -6.96*

Dep. Variable = Marital Satisfaction
*Significant at the p < .01

Research Question 5 / Hypotheses 5a – 5d

Research Question 5 was aimed at determining whether the relationship between attachment *avoidance* and marital satisfaction was partially mediated by dyadic coping. In order to test for mediation, three base hypotheses must be supported. Correlation analyses confirmed that there was a significant, negative relationship between attachment avoidance and marital satisfaction (Hypothesis 5a), a significant, negative relationship between attachment anxiety and dyadic coping (Hypothesis 5b), and a significant, positive relationship between dyadic coping and marital satisfaction (Hypothesis 5c). Thus, these base hypotheses were all supported. The hypothesized mediation model for attachment avoidance is pictured in Figure 5.

Figure 5. Hypothesized Mediation Model with Attachment Avoidance



Values shown are Correlation Coefficients (*r*)
*Significant at the p < .01

To test Hypothesis 5d, multiple regression analyses were run, first with attachment avoidance as the sole predictor of marital satisfaction, and then adding dyadic coping. When dyadic coping and attachment avoidance were used simultaneously to predict marital satisfaction, the significant direct path ($\beta = -.74$, $t = -15.18$, $p < .01$)

between attachment avoidance and marital satisfaction was greatly reduced (β = -.39, t = -6.31, p < .01), indicating that dyadic coping served a partially mediating function. Although avoidance was still a significant predictor, the semi-partial correlation between avoidance and marital satisfaction was -.27, whereas the zero-order correlation between avoidance and marital satisfaction was -.74. The results of the mediation analyses associated with Research Question 5 are presented in Table 12.

Because the direct path between attachment anxiety and marital satisfaction remained significant, follow-up analyses suggested by Sobel (1982) were conducted to determine whether the entire mediating path (from anxiety to dyadic coping to marital satisfaction) was significant. These analyses confirmed that the mediating pathway was significant (β = -.47, t = -9.32, p < .01). Thus, Hypothesis 5d was supported. The results of these follow-up analyses are presented in Table 13.

Table 12

Multiple Regression: Dyadic Coping as a Mediator of Attachment Avoidance and Marital Satisfaction

Model	Adj. ^{2}	Variable	Std. Error	β	t	Zero-order	Part
1	.55	Avoidance	.02	-.74	-15.18*	-.74	-.74
2	.65	Avoidance	.02	-.39	-6.31*	-.74	-.27
		Dyadic Coping	.02	.48	7.72*	.77	.33

Dep. Variable = Marital Satisfaction
*Significant at the p < .01

Table 13
Sobel's Follow-Up Analyses: Regression Coefficients for Mediating Pathway

Path B Avoidance to Dyadic Coping	**Path C** Dyadic Coping to Marital Satisfaction	**Full Path**
β = -.73	β = .64	β = -.47
s = .05	*s* = .05	*s* = .05
t = -14.58*	*t* = 12.14*	*t* = -9.3*

Dep. Variable = Marital Satisfaction
*Significant at the p < .01

Additional Analyses

Although marital satisfaction was the primary dependent variable in this study, discussion with dissertation committee members suggested that exploration of marital instability also might be warranted. Of particular interest was how the regression equation used in Research Question 2 would differentially predict marital instability compared to marital satisfaction. Accordingly, a follow-up analysis was conducted to explore how the study variables impacted marital instability. A multiple regression analysis was conducted, using the same six predictor variables as in Research Question 2, but with marital instability as the criterion variable rather than marital satisfaction. This regression model accounted for 37% of the variance in marital instability (as compared to 67% of the variance in marital satisfaction), with only attachment anxiety (β = .28, *t* = 3.73, *p* < .01) and dyadic coping (β = -.27, *t* = -3.13, *p* < .01) emerging as significant predictors. Perceived stress, attachment avoidance, division of household tasks, and satisfaction with division of tasks were not significant predictors. It is noteworthy that attachment anxiety was a stronger predictor than attachment avoidance when predicting

marital instability. The opposite was true in the prediction of marital satisfaction; that is, attachment avoidance was a stronger predictor than was attachment anxiety.

Table 14

Multiple Regression: Predictors of Marital Instability

Variable	Adj. R^2	SE	Stand. β	t	Zero-order	Partial
Model summary	.37					
Stress		.02	-.10	-1.60	.09	-.12
Avoidance		.01	.11	1.23	.51	.09
Anxiety		.01	-.28	3.73*	.50	.27
Dyadic Coping		.02	-.27	-3.13*	-.55	-.23
Division of Household Tasks		.04	.09	1.45	.28	.11
Satisfaction with Tasks		.15	-.08	-1.22	-.35	-.09

*Significant at the $p < .01$

Summary

The results of the study were provided in this chapter. Descriptions of how the sample was obtained and demographics of the sample were presented. Descriptive statistics of the instrumentation was provided, including means, standard deviations, ranges, and reliability coefficients for the current sample. All scales used in the study were determined to be reliable with this sample. Bivariate correlations among study variables were provided. Finally, data analyses for each hypothesis were described and the results were presented. No significant main effects were found for degree program on study variables. The multiple regression model including six study variables accounted for over two-thirds of the variance in marital satisfaction. Attachment anxiety, attachment avoidance, and dyadic coping were significant predictors of marital satisfaction, but

perceived stress, division of household tasks, and satisfaction with division of tasks were not. A follow-up regression analysis with these same predictor variables revealed that attachment anxiety and dyadic coping accounted for 37% of the variance in marital instability. Dyadic coping was not found to be a moderator of the relationship between perceived stress and marital satisfaction. Dyadic coping did serve, however, as a partial mediator of the relationships between both attachment dimensions and marital satisfaction. In Chapter V, these results and their implications for counselor education are discussed. Additionally, study limitations are described and directions for future research are proposed.

CHAPTER V

DISCUSSION

In Chapter IV, results of the study examining factors that impact the marital satisfaction of counseling graduate students were presented. In this chapter, a discussion of these results is offered, along with a description of the study limitations, implications for counselors and counselor educators, and directions for future research.

Overview

Marital researchers have shown that marital satisfaction may be affected by stressful events, enduring vulnerabilities, and adaptive processes (Karney & Bradbury, 1995). Graduate school is one stressful time period that can negatively impact a marriage. Because one of the commonly reported stressors of graduate students is role strain (Polson & Nida, 1998; Mallinckrodt & Leong, 2001), the way students and their partners negotiate household responsibilities may contribute to their marital satisfaction. Additionally, attachment anxiety and avoidance are potential enduring vulnerabilities that may impact how graduate students respond to stress within the context of a marriage (Butzer & Campbell, 2008; Marchand, 2004). Finally, dyadic coping is an adaptive process that may contribute to the marital satisfaction of graduate students (Bodenmann, 1995, 2005). Although each of these variables has been explored individually, this combination of variables has not been examined among a sample of counseling graduate students.

In addition to the academic rigors of graduate school, counseling students are faced with the very personal and emotional nature of clinical training (Skovholt & Ronnestad, 2003). This presents the potential for bidirectional spillover stress between school/work and home life, which can have deleterious ripple effects on the student's physical health, psychological well-being, marital well-being, academic performance, clinical effectiveness, and ultimately, client welfare.

Therefore, this study was designed to examine factors that impact the marital satisfaction of counseling graduate students, and to test moderating and mediating models involving these factors. Additionally, because marital satisfaction, by nature, tends to ebb and flow over time, a measure of marital instability was included as a supplemental indication of marital quality. Counseling students from 7 master's-only programs and 16 master's and doctoral programs were invited to participate in an electronic survey. The survey included the Perceived Stress Scale (PSS; Cohen et al., 1983), the Experiences in Close Relationships – Revised questionnaire (ECR-R; Fraley, Waller, & Brennan, 2000), the Dyadic Coping Inventory (DCI; G. Bodenmann, personal communication, August 11, 2008), the Relationship Assessment Scale (RAS; Hendrick, 1988), the Marital Instability Index – Brief Form (MII; Booth, Johnson, & Edwards, 1983), questions addressing the division of household tasks (including a 1-item measure of satisfaction), and a demographic questionnaire. A total of 191 surveys were used for data analysis.

Overall, a number of interesting findings emerged from the study. Zero-order correlations indicated that the relationships among the study variables existed in the expected directions. Additionally, predictor variables accounted for 67% of the variance

in marital satisfaction, providing strong evidence that these variables are important predictors of marital satisfaction. More specifically, attachment anxiety, attachment avoidance, and dyadic coping accounted for the most variance, whereas perceived stress, division of household tasks, and satisfaction with division of tasks were not significant predictors. Dyadic coping did not serve a moderating role in the relationship between perceived stress and marital satisfaction, but did partially mediate the relationships between both attachment dimensions and marital satisfaction. Master's and doctoral students did not differ significantly on any of the primary study variables. The results related to preliminary analyses, research hypotheses, and follow-up analyses are discussed in more detail below.

Discussion of Results

Preliminary Analyses

The zero-order correlations revealed several interesting findings. First there was a strong positive relationship between attachment anxiety and perceived stress ($r = .39$, $p < .01$). In fact, this was the strongest correlation involving perceived stress. This suggests that those with anxious attachments appraise potential threats as more stressful than others. This is consistent with the theoretical assumption that the perceived unavailability of attachment figures contributes to the distress associated with a perceived threat (Shaver & Mikulincer, 2006). In addition, anxiously-attached individuals are prone to heightened negative emotion, worry, and rumination on stressors, which serves to keep these concerns more salient (Shaver & Mikulincer, 2006). Given this theoretical context for the findings, it appears that attachment anxiety may be a predictor of perceived stress.

Another notable finding was the very strong negative relationship between attachment avoidance and dyadic coping (r = -.73, p < .01). This is also theoretically consistent, as highly avoidant individuals tend to use deactivating strategies to cope with stressors (Cassidy & Kobak, 1988). These strategies include denial of attachment needs, avoidance of intimacy, and attempts to cope with distress alone (Shaver & Mikulincer, 2006). In addition, avoidant individuals may even dismiss stress-related thoughts and emotions, which may help to explain why attachment avoidance had a weaker correlation (r = .19, p < .05) with perceived stress than did attachment anxiety (r = .39, p < .01). These findings underscore the importance of attachment-related differences in perceived stress and dyadic coping.

Research Question 1

Research Question 1 examined potential differences between master's and doctoral students on the five primary study variables (perceived stress, attachment anxiety, attachment avoidance, dyadic coping, and marital satisfaction). Due to the dearth of research on differences between master's and doctoral students, Hypotheses 1a through 1e suggested that there would be no significant mean differences between master's and doctoral students on the five primary study variables. These hypotheses were supported. This is consistent with the only other study that examined the marital satisfaction of master's and doctoral students (Gold, 2006), suggesting that the experiences of all graduate students is similar, at least related to the variables of interest in this study.

Research Question 2

Research Question 2 was aimed at assessing the proportion of variance in marital satisfaction that could be explained by perceived stress, attachment anxiety, attachment avoidance, dyadic coping, division of household tasks, and satisfaction with the division of tasks. Hypothesis 2 suggested that each of these variables would account for a significant portion of the variance in marital satisfaction. This hypothesis was largely supported, though not all of the predictors were significant. Together, attachment avoidance, attachment anxiety, and dyadic coping accounted for 67% of the variance in marital satisfaction. Perceived stress, division of household tasks, and satisfaction with division of tasks did not contribute significantly to the prediction of marital satisfaction.

Researchers vary in their interpretation of what constitutes small, medium, and large effect sizes. Most, however, consider an Adjusted R^2 of .25 (Vacha-Haase & Thompson, 2004) to .35 (Cohen, 1992) to be large effect sizes. Therefore, the Adjusted R^2 of .67 obtained in this study is considered large by any standard. Given the large effect size of the regression model, attachment avoidance, attachment anxiety, and dyadic coping appear to be vital factors in the prediction of marital satisfaction of counseling graduate students. In the multiple regression equation with all six predictors in the model, dyadic coping was the strongest predictor followed by attachment avoidance and then attachment anxiety. These findings replicate previous research that supports the strong links between attachment and relationship satisfaction (Banse, 2004; Butzer & Campbell, 2008; Feeney, 1999) and between dyadic coping and relationship satisfaction (Bodenmann & Cina, 2005; Bodenmann et al., 2006). Additionally, these findings are

consistent with the tenets of the VSA model, particularly with regard to the role of enduring vulnerabilities and adaptive processes in predicting marital quality (Karney & Bradbury, 1995). It is important to note that the results obtained from the regression analysis are correlational, not causal. Although the model does not indicate that the predictors *cause* changes in marital satisfaction, it does provide valuable information about the strong relationships between the predictors and marital satisfaction, and offers evidence that these variables have a great deal of influence in predicting marital satisfaction. The magnitude of these findings points to a number of practical applications and directions for future research, which will be discussed later in the chapter.

It is unclear why perceived stress did not significantly predict marital satisfaction in this sample. The bivariate correlation between perceived stress and marital satisfaction was, in fact, significant. It was only when other variables were included in the multivariate equation that stress was no longer a significant predictor, indicating that other factors had a much greater impact on marital satisfaction within the multivariate model. Both stress and satisfaction exhibited adequate variance, and previous researchers have provided considerable evidence that marital satisfaction is usually affected by stress (e.g., Bodenmann, Ledermann, & Bradbury, 2007; Cohan & Bradbury, 1997; Neff & Karney, 2004; Tesser & Beach, 1998). Some researchers, however, have found that there are situations in which stress does not negatively affect marital satisfaction, and may, in fact, provide opportunities for couples to strengthen their relationships (Schwab, 1998; Story & Bradbury, 2004; Ward & Spitze, 1998). It is possible that this is the case for some participants in the current sample. It is also possible that the regression model

tested in the current study did not include one or more key moderating variables, such as individual coping, cognitive attributions, or general optimism / pessimism, which would help to explain the relationship between stress and marital satisfaction among counseling graduate students. These unanswered questions and inconsistencies with prior research warrant additional exploration.

The division of household tasks was included in the regression equation because graduate students often cite role strain (Polson & Nida, 1998; Mallinckrodt & Leong, 2001) and lack of time and energy (Gold, 2006; Sori et al., 1996) as stressors. In order to understand the findings, it is important to note that higher scores on this instrument indicate that the participant reports being responsible for more of the household tasks, while lower scores indicate that the participant reports the spouse as being responsible for more of the household tasks. Thus, the negative correlation with marital satisfaction indicates that marital satisfaction is lower when one is responsible for more household tasks. Although there was a significant zero-order correlation between division of household tasks and marital satisfaction, the regression equation did not indicate that division of tasks was a significant predictor of marital satisfaction when considered with the other study variables. Interestingly, there was not a significant correlation between division of household tasks and perceived stress, which suggests that the association between division of labor and marital satisfaction is likely explained by something other than the stress associated with household tasks. For instance, different expectations or disagreements about division of household labor may affect marital satisfaction more than the actual way that household labor is divided.

Results regarding the subscale of Satisfaction with Division of Tasks supported this train of thought. The Satisfaction subscale consisted of a single item to assess one's *satisfaction* with the way household tasks are divided, with higher scores indicating more satisfaction. This item measured a separate construct than the rest of the instrument (satisfaction with division of labor versus who is responsible for certain tasks) and was therefore kept separate in the analyses. In fact, the correlation between satisfaction with division of labor and actual division of labor was only .41 ($p < .01$), supporting the assumption that they are related but distinct constructs. Satisfaction with division of household tasks was more strongly correlated with all study variables than was actual division of tasks, including a strong bivariate correlation with marital satisfaction ($r = .44$, $p < .01$). Satisfaction with division of labor also was significantly correlated with perceived stress ($r = -.19$, $p < .01$), whereas actual division of labor was not. These correlations suggest that, regardless of the way household responsibilities are divided, dissatisfaction with the arrangement is more strongly associated with perceived stress and marital satisfaction.

Research Question 3

Research Question 3 examined the relationship between perceived stress and marital satisfaction, along with the potentially moderating role of dyadic coping. The base Hypothesis 3a proposed that there would be a significant, negative association between perceived stress and marital satisfaction. This hypothesis was supported, but the correlation was modest. Furthermore, as noted in Research Question 2, perceived stress did not significantly predict marital satisfaction when other variables were included in the

regression equation. Hypothesis 3b suggested that dyadic coping would moderate the relationship between stress and marital satisfaction. Given the above discussion, it is not surprising that this hypothesis was not supported. Dyadic coping emerged as a strong direct predictor of marital satisfaction rather than a moderator. In other words, regardless of stress level, the dyadic coping strategies that counseling graduate students and their spouses employ have a direct effect on their satisfaction with the marriage. This is partially consistent with prior research. Bodenmann suggested that dyadic coping has two primary objectives: 1) the reduction of stress and 2) the enhancement of relationship quality (2005). The current findings support the second of these objectives and replicate prior research that highlighted the direct relationship between dyadic coping and marital satisfaction (Bodenmann & Cina, 2005; Bodenmann et al., 2006). It is unclear from this study, however, how well dyadic coping meets the first proposed objective, partly due to the weak relationship between perceived stress and marital satisfaction. Additional research is warranted to more fully parse out the importance of dyadic coping.

Research Question 4

Research Question 4 examined the relationship between attachment anxiety and marital satisfaction, along with the potentially mediating role of dyadic coping. In order to test for mediation, three base hypotheses were tested. Hypothesis 4a proposed that there would be a significant, negative relationship between attachment anxiety and marital satisfaction. Hypothesis 4b proposed that there would be a significant, negative relationship between attachment anxiety and dyadic coping. Hypothesis 4c proposed that there would be a significant, positive relationship between dyadic coping and marital

satisfaction. Finally, Hypothesis 4d suggested that dyadic coping would partially mediate the relationship between attachment anxiety and marital satisfaction. All four of these hypotheses were supported. In other words, the effect of attachment anxiety on marital satisfaction is partially due to its effect on dyadic coping. This is consistent with theoretical and empirical research on adult attachment and its effects on romantic relationships. For instance, researchers have shown repeatedly that attachment characteristics shape the way individuals appraise, cope with, and adjust to stress (Kotler, Buzwell, Romeo, & Bowland, 1994; Mikulincer & Florian, 1998; Rholes & Simpson, 2004). Individuals with high levels of attachment anxiety have a strong fear of rejection and tend to worry a great deal that their partners will not be available or responsive in times of need. As a result of these fears, anxious individuals tend to overreact to stressors, experience high levels of negative emotionality, and use maladaptive coping behaviors (Shaver & Mikulincer, 2006). These individuals are likely to respond to stressors with one of two extremes. They may use hyperactivating strategies (Cassidy & Kobak, 1988) such as overdependence on the partner, clinging and controlling behaviors, and persistent attempts to solicit attention and support from the partner, rather than engaging in more constructive strategies of dyadic coping. Alternatively, highly anxious partners may suppress negative emotion or distress due to fear of the partner's rejection or abandonment (Feeney, 1998). Because these strategies tend to backfire, they neither help to manage stress nor help to foster satisfaction with the relationship. Thus, a negative cycle is perpetuated. As evidenced in the zero-order correlation between attachment anxiety and perceived stress, anxious individuals tend to appraise situations as more

stressful than less-anxious individuals (due to heightened negative emotions and rumination about the perceived threat). As Hypothesis 4b suggested, highly anxious individuals tend to engage in maladaptive coping strategies (i.e., either suppressing emotion or overreacting), which fail to foster the mutual trust and positive relational attributions that would result from dyadic coping. As a result, highly anxious individuals continue to feel as though their relational needs are not being met (confirming their worst fears), which contributes to lower levels of marital satisfaction (Hypothesis 4c). In this way, as Hypothesis 4d suggested, the effect of attachment anxiety on marital satisfaction can be explained partially by its effect on dyadic coping.

Research Question 5

Research Question 5 examined the relationship between attachment avoidance and marital satisfaction, along with the potentially mediating role of dyadic coping. In order to test for mediation, three base hypotheses were tested. Hypothesis 5a proposed that there would be a significant, negative relationship between attachment avoidance and marital satisfaction. Hypothesis 5b proposed that there would be a significant, negative relationship between attachment avoidance and dyadic coping. Hypothesis 5c proposed that there would be a significant, positive relationship between dyadic coping and marital satisfaction. Finally, Hypothesis 5d suggested that dyadic coping would partially mediate the relationship between attachment avoidance and marital satisfaction. All four of these hypotheses were supported. In other words, the effect of attachment avoidance on marital satisfaction is partially due to its effect on dyadic coping. Although this is similar to Research Question 4, the explanations for the attachment avoidance model are distinct

from the explanations for the attachment anxiety model. As described above, theoretical and empirical research on adult attachment provide evidence that attachment models of one's self and others influence the way one experiences close relationships (Hazan & Shaver, 1987) and the way one perceives and responds to stressors in the context of those relationships (Shaver & Mikulincer, 2006). Individuals with high levels of avoidant attachment find it difficult to trust others and tend to be afraid of intimacy, likely due to experiencing a consistent lack of availability and responsiveness in prior attachment relationships (Hazan & Shaver, 1994). As a result, they tend to respond to stressors with deactivating strategies (Cassidy & Kobak, 1988) characterized by denial of attachment needs, avoidance of intimacy, and increased emotional and physical distance from others. Avoidant individuals tend to suppress expression of negative emotion in order to avoid conflict or dependence on others (Feeney, 1998). Whereas anxious individuals tend to overreact to stressors, avoidant individuals tend to under-react (Shaver & Mikulincer, 2006) and, therefore, do not take appropriate advantage of dyadic coping opportunities, which could help to manage stress and contribute to higher marital quality. Thus, a different kind of cycle is perpetuated. As Hypothesis 5b suggested, highly avoidant individuals tend not to engage in dyadic coping, perhaps due to beliefs that attachment figures will not be responsive and, therefore, that joint coping efforts will not be productive in alleviating distress (Mikulincer, 2002). As a result, these individuals do not experience the benefits of dyadic coping and their relational needs are not met, which contributes to lower levels of marital satisfaction (Hypothesis 5c). In this way, as

Hypothesis 5d suggested, the effects of attachment avoidance on marital satisfaction can be explained partially by its effect on dyadic coping.

Additional Analyses

Because marital satisfaction tends to ebb and flow over time, a measure of marital instability was included in the survey as a supplemental measure of marital quality. As the zero-order correlations indicate, marital instability was associated significantly with all study variables with the exception of perceived stress. As a follow-up analysis, a multiple regression was conducted for heuristic purposes, with marital instability as the dependent variable rather than relationship satisfaction (as in Research Question 2). Perceived stress, attachment anxiety, attachment avoidance, dyadic coping, division of household tasks, and satisfaction with division of tasks were entered as predictor variables. Together, these variables accounted for 37% of the variance in marital instability, as compared to 67% of the variance in marital satisfaction. Also of importance is the relative magnitude of the two attachment dimensions as predictors. When marital satisfaction was the dependent variable, both attachment predictors were significant, but avoidance was the stronger predictor of the two. Conversely, when marital instability was the dependent variable, anxiety was the stronger predictor and, in fact, avoidance was not a significant predictor. This difference is particularly salient given the amount of shared variance between marital satisfaction and marital instability (r = -.75).

Only attachment anxiety and dyadic coping emerged as significant predictors in this model. Interestingly, attachment avoidance was a significant predictor of marital

satisfaction but not of marital instability. In other words, although avoidant individuals tend to be less satisfied with their relationships, their marriages are not necessarily unstable. One possible explanation for this is that avoidant individuals may be less likely to verbalize their dissatisfaction or to engage in interactions that may heighten conflict or negative emotions. Although this means that they may not reap the relational benefits of working through issues with their partners, it also means that they may not "rock the boat" and the marital homeostasis is maintained. This is consistent with Gottman's (1994) description of couples who live parallel lives; they may not be happy with aspects of the relationship, but it remains stable, in part because conflict is avoided.

These findings suggest that this combination of predictor variables has a greater impact on one's current satisfaction with the relationship than on one's thoughts or intentions of ending the relationship. This is consistent with research that indicates a distinction between these two constructs and their influencing factors (Booth, Johnson, & Edwards, 1983; Cohan & Bradbury, 1997; White & Booth, 1991).

Limitations

As with all empirical research, there are limitations to the current study. First, due to the cross-sectional design of the study, it is not possible to control for relationship experiences or marital satisfaction prior to graduate school or changes in coping strategies and marital satisfaction over time. Therefore, the current study does not provide information about causal associations among the variables or evidence of change over time.

Secondly, the data were collected in the form of self-report questionnaires. Self-report data can threaten the validity of the results in two ways. Informants may respond in socially-desirable ways and therefore not provide accurate information. Additionally, research that relies only on self-reports is subject to mono-method bias, which introduces the risk of shared method variance. Shared method variance refers to effects found as a result of the method used, rather than the constructs themselves, and threatens the construct validity of the study (Bank, Dishion, Skinner, & Patterson, 1990; Shadish, Cook, & Campbell, 2002).

A related limitation is that data were only collected from students and not from their partners. Thus, results of the analyses are based on the perceptions and experiences of one partner. Given the dyadic nature of the variables being studied, data from both partners would help to provide a broader picture of the relationships among these variables.

Additionally, the current study examined only those in heterosexual marriages and, therefore, any interpretation of the findings is limited to that subset of the population. It is unknown if these findings would generalize to persons in same sex partnerships or marriages, or to cohabiting couples regardless of sexual orientation. Additional research is needed to tease out the differences in these different sub-groups of committed partners.

Another sampling limitation in the current study is the low response rate. Of the 45 program liaisons contacted, only 23 agreed to forward the survey to students in their departments. Based on rough estimates provided by the participating program liaisons,

the total response rate was approximately 15.3% and the married response rate was approximately 17.4%. It is unknown if there are significant differences between respondents and nonrespondents of this survey.

Another potential validity threat in the current study is self-selection bias. There may be systematic differences between those who chose to respond to the survey and those who did not. For instance, those who feel particularly positive or negative about their marriages may be more drawn to the study and inclined to respond. Any systematic differences between respondents and non-respondents may cause the sample to be non-representative of the target population and threaten the external validity of the study (Karney et al., 1995). In order to minimize this potential threat, the description of the study in the introductory email was intentionally vague and did not emphasize marital satisfaction as the primary dependent variable. Given the amount of variance exhibited in all study variables, it does not appear that self-selection bias represented a serious threat to the findings.

There are a number of potentially confounding variables, such as depression, general optimism/pessimism, and relationship history that were not measured. As with all research, it is not possible to account for all possible variables impacting the dependent variable. The items on the demographic questionnaire were chosen based on relevant literature to date.

Although most of the instruments used in the study were well-established measures with acceptable psychometric properties, the Division of Household Tasks was adapted by the researcher from a number of similar measures. Thus, its reliability and

validity have not been fully established. In addition, the Satisfaction with Division of Tasks subscale is a single-item measure of this construct, also adapted from similar measures. Single-item measures present some limitations, mainly due to difficulty establishing reliability, and the tendency to correlate only moderately with scale measures (Nagy, 2002; Wanous & Hudy, 2001). Some researchers, however, have defended the use of single-item measures under circumstances in which the construct is unidimensional, clear to respondents, and sufficiently narrow (Sackett & Larson, 1990). Nevertheless, results involving this measure should be interpreted with caution.

Implications

Partly due to the documented overlap between personal well-being and professional effectiveness (Lawson, 2007; Sweeney, 2001), counselor educators have advocated for additional attention to the wellness and self-care of counselors-in-training (Herlihy, 1996; Stebnicki, 2007; Witmer & Young, 1996). Marital satisfaction is one aspect of general well-being, and is associated with physical health (Robles & Kiecolt-Glaser, 2003; Schmaling & Sher, 1997), psychological well-being (Barnett et al., 1995; Kelly & Fincham, 1999), and general life satisfaction (Heller et al., 2004). Therefore, the overarching purpose of this study was to examine factors that impact the marital satisfaction of counseling graduate students.

Attachment avoidance, attachment anxiety, and dyadic coping accounted for about two-thirds of the variance in marital satisfaction of counseling graduate students. Although perceived stress did not emerge as a significant predictor, it appears that the way participants cope with stressors is an important factor in their marital satisfaction.

This is valuable information for students entering a counseling graduate program and could be incorporated into an orientation program for students and spouses. Traditionally, orientations have been focused only on the student and include information that helps students prepare for the academic aspects of graduate school. An orientation designed for students and spouses could address several needs, such as preparing students and their spouses for the specific types of stressors they may encounter, individually and relationally, throughout the program and their career, emphasizing the importance of spousal support and dyadic coping, and offering practical suggestions for effectively managing these stressors. Addressing these concerns early in the program can have long-term benefits for students, both personally and professionally. Additionally, awareness of these factors can help counselor educators better understand and support married students throughout their time in the program.

The role of attachment in marital interactions and satisfaction is primarily relevant for counseling students, their spouses, and counselors. Although early attachment theorists assumed that attachment characteristics were stable and resistant to change (Bowlby, 1979), more recent theorists have suggested that attachment is continually shaped through interactions with significant others (Davila, Karney, & Bradbury, 1999; Johnson & Whiffen, 1999). In other words, a better understanding of attachment and how it impacts one's appraisal of stress, coping strategies, and marital satisfaction could be beneficial to counseling students and their spouses. Additionally, if they choose to seek counseling, it might be helpful to explore attachment insecurities of each partner and

ways to bridge the gaps that attachment wounds create. An example of a relevant couples counseling approach is presented below.

Emotionally-Focused Couple Therapy

Emotionally-Focused Couple Therapy (EFT) is one approach to couples counseling that uses Attachment Theory as a guiding framework (Johnson, 2004). The major goals of EFT are to address attachment concerns, reduce attachment insecurities, and foster the creation of a secure bond. This approach focuses on facilitating corrective emotional experiences that serve to build trust and secure attachment. As described in Chapter II, internal working models are shaped through emotional experiences; therefore, EFT counselors help couples generate new emotional experiences that can disconfirm past fears and biases, allow internal models to be expanded, and new behaviors to be reinforced (Collins & Read, 1994; Johnson & Whiffen, 1999). Some of the primary assumptions of EFT are directly relevant to the current study, including the following: 1) The key issue in marital conflict is the security of the emotional bond, which is created by accessibility, responsiveness, and emotional engagement; 2) Emotion is the key factor in organizing the way the self and others are experienced in intimate relationships; as such, the facilitation of new emotional experience is essential for both intrapsychic and interpersonal change; 3) Marital distress is maintained by the way partners organize and process their emotional experience, and the patterns of interaction they engage in; furthermore, these elements have a reciprocal influence on each other, and can be addressed and reshaped in therapy, 4) Attachment needs and desires are essentially healthy; thus recognition and validation of such needs is a key feature of EFT; 5) The

theory of change in EFT involves the accessing and reprocessing of the emotional experience, which allows for new interactions to occur than can redefine the marital bond (Johnson, 2004).

Although the EFT approach does not address explicitly the concept of dyadic coping, it does include an emphasis on the importance of interaction patterns, as noted in the third and fifth assumptions presented above. Similarly, one of the two primary objectives of dyadic coping is to reinforce the marital bond via mutual trust, commitment, and the perception of the relationship as a supportive resource. In other words, the process of dyadic coping may foster the perception that the partner is available and responsive, thereby contributing to attachment security. The reverse is also true; as internal working models are reshaped and expanded, each partner will feel more secure and willing to engage in constructive dyadic coping interactions. In this way, the underlying philosophies of attachment theory and dyadic coping theory complement one another and can be addressed simultaneously with a counseling approach such as EFT. Given the magnitude of the relationships between attachment, dyadic coping, and marital satisfaction, the EFT model offers a promising approach for addressing attachment insecurities and dyadic coping strategies among counseling graduate students.

Ultimately, these findings could benefit married counseling graduate students directly and/or indirectly through their counselors, supervisors, or faculty members. Learning how to handle the academic, personal, and professional challenges of the counseling field early in the training will serve counseling students and their marriages well throughout their careers.

Future Research

As with most research, answers to one study often present additional questions to guide future studies. Given the findings and limitations of the current study, a number of opportunities for future research emerge.

First, researchers could contribute to this line of research by expanding the sample. For example, data collected from both students and partners would provide a more complete picture of marital dynamics and allow for comparisons within and between couples. Paired data would also allow for study of crossover effects (also called partner effects). In other words, how does one partner's perceived stress, attachment, or dyadic coping patterns impact the other partner's marital satisfaction? Researchers also could explore these variables among other relationship statuses, such as committed, cohabiting, and same-sex partnerships. This would allow for comparisons based on relationship status and provide practical implications for other subsets of the counseling graduate student population. Finally, purposive sampling efforts to obtain more male participants would allow for gender analyses. These suggestions related to sampling would provide more breadth to the information gathered in this study, by including a wider view of counseling graduate students.

In addition to adding breadth, future studies could contribute to this line of research by adding depth to the information gained in the current study. For instance, this study provided strong evidence that dyadic coping is a key factor in the marital satisfaction of counseling graduate students. Only the total scale score of the Dyadic Coping Inventory was used, however, in these analyses. The Dyadic Coping Inventory

has nine subscales that could be explored in order to answer more detailed questions about the role of dyadic coping. Perhaps certain subscales are more important in predicting marital satisfaction. Perhaps highly anxious and highly avoidant individuals vary significantly on certain subscales.

Another way to extend the current line of research is to include more potentially moderating or mediating variables. Particularly because of the unexpectedly weak association between perceived stress and marital satisfaction in the current sample, it would be useful to further explore variables that might shed light on this relationship. These variables might include parenting strain, age of children, whether the student is working in addition to school, individual coping style, depression, and general optimism.

Other types of research designs could extend the current research in a number of ways. One way to glean rich information about the experiences of counseling graduate students is through qualitative studies. Both quantitative and qualitative research designs have advantages and disadvantages, and they can serve to inform each other. Qualitative research would allow for deeper exploration of specific sources of stress and ways that counseling students cope with these stressors in the context of their marriages.

Additionally, longitudinal research would allow researchers to examine how marital satisfaction and related variables change over time, and control for factors prior to the start of graduate study. Longitudinal research also allows researchers to draw inferences about causal relationships among the variables in question, rather than only correlational inferences.

Finally, the large effect size of the regression model suggests that attachment avoidance, attachment anxiety, and dyadic coping are key factors in the marital satisfaction of counseling graduate students. These results provide clear direction for outcome studies to determine how interventions involving attachment and/or dyadic coping may enhance marital satisfaction. These outcome studies could examine clinical interventions such as EFT or counselor education efforts such as orientation programs focused specifically on couple and family stressors.

Conclusion

The current study provided an exploration of the factors that predict the marital satisfaction of counseling graduate students. Attachment theory and the VSA model provided complementary frameworks that guided the design and methodology of the study. Electronic survey methodology was used and a sample of 191 students from 23 CACREP-accredited counseling programs was obtained. Data were analyzed and results for each hypothesis presented. No significant mean differences were found between master's and doctoral students. A regression model accounted for 67% of the variance in marital satisfaction, with attachment anxiety, attachment avoidance, and dyadic coping emerging as significant predictors. Unexpectedly, perceived stress, division of household tasks, and satisfaction with division of tasks were not significant predictors in this model. Likely due to the modest correlation between perceived stress and marital satisfaction, dyadic coping did not emerge as a moderator of this relationship. Dyadic coping, however, did serve as a partial mediator of the relationships between both attachment dimensions and marital satisfaction. Follow-up analyses were conducted with marital

stability, in which attachment anxiety and dyadic coping accounted for 37% of the variance in marital stability. These findings were discussed within the context of existing theoretical and empirical literature and limitations of the study. Implications for counseling students, counselors, and counselor educators were discussed along with directions for future research.

This study highlights the key roles of adult attachment characteristics and dyadic coping patterns in predicting the marital satisfaction of counseling graduate students. Due to unexpected findings regarding perceived stress, it also points to the need for further exploration of factors that impact the stress and coping processes of this population. In order to more fully understand the experiences of counseling graduate students and their partners, future research could contribute by conducting qualitative studies, including more potentially moderating and mediating variables, collecting data from both students and partners, including other relationship types, and purposively sampling to obtain more male participants. Although many questions remain unanswered, the current study provides strong evidence that adult attachment characteristics and dyadic coping strategies are important to consider in the lives of counseling students.

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APPENDIX A: INSTRUCTIONS AND INFORMED CONSENT

Page

Email Invitation to Participate

Hello!

My name is Kerrie Kardatzke, and I am a PhD student in Counselor Education at the University of North Carolina at Greensboro. I am conducting a dissertation study aimed at examining factors that impact the experiences of counseling graduate students, and I am writing to request your participation in a survey. As a master's or doctoral student in a CACREP-accredited counseling program, you are eligible to participate in this study.

If you choose to participate, the link below will take you to an electronic survey, which will take approximately 20 minutes to complete. Additional details and instructions are provided in the informed consent at the beginning of the survey, which can be accessed by clicking on the link below.

Once you have completed the survey, you will be given the option to enter a drawing for one of four $50 Target gift cards. If you choose to enter the drawing, you will be directed to a separate link and your email address will not be linked to your survey.

Questions can be directed to me at knkardat@uncg.edu.

Thank you for your time and participation!

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO

CONSENT TO ACT AS A HUMAN PARTICIPANT: LONG FORM

Project Title: Stress and Coping of Counseling Graduate Students

Project Director: Kerrie Kardatzke

What is the study about?
The purpose of this study is to examine factors that impact the experiences of counseling graduate students. This study is designed to examine the relationships among a combination of variables that have not been studied within this population, including perceived stress, adult attachment, dyadic coping, and relationship satisfaction.

Why are you asking me?
You are receiving this survey because you are a current graduate student in a counseling program.

What will you ask me to do if I agree to be in the study?
If you choose to participate, you will be asked to provide some demographic information and respond to a series of questions regarding your stress level, attachment characteristics, coping strategies, and (if you are in a committed relationship) relationship satisfaction. The online survey is expected to take approximately 20 minutes.

What are the dangers to me?
The Institutional Review Board at the University of North Carolina at Greensboro has determined that participation in this study poses minimal risk to participants. It is possible that the process of reflecting on issues of stress, adult attachment, coping strategies, and relationship satisfaction may cause emotional discomfort. If you experience any emotional discomfort, you are encouraged to seek support from a faculty member or other trusted advisor.

If you have any concerns about your rights or how you are being treated please contact Eric Allen in the Office of Research and Compliance at UNCG at (336) 256-1482. Questions about this project or your benefits or risks associated with being in this study can be answered by Dr. Craig Cashwell (cscashwe@uncg.edu) or Kerrie Kardatzke at (knkardat@uncg.edu).

Are there any benefits to me for taking part in this research study?
The process of reflecting on issues of stress, adult attachment, dyadic coping strategies, and relationship satisfaction may lead to increased clarity and insight about the way one handles the stress associated with graduate school.

Are there any benefits to society as a result of me taking part in this research?
The results of this study will provide valuable information about how stress and adult attachment impact relationship satisfaction and coping strategies of counseling graduate students. This information will be useful to counselor educators, counselors who work with graduate students, and students, themselves. Clarification of the factors that impact stress and coping may help counseling students to navigate the training program successfully and eventually contribute to the field as professional counselors and/or counselor educators.

Will I get paid for being in the study? Will it cost me anything?
Participating in the survey will not cost you anything, and you will not be paid for taking the survey. Participants who complete the survey will be offered the opportunity to enter a drawing for one of four $50 Target gift cards.

How will you keep my information confidential?
The SurveyMonkey site for survey research offers confidential data collection procedures. Participant email addresses and IP addresses will not be linked to the actual responses, so there will be no identifying information on each survey. All information obtained in this study is strictly confidential. However, absolute confidentiality of data provided through the Internet cannot be guaranteed due to the limited protections of Internet access. Please be sure to close your browser when finished so no one will be able to see what you have been doing. Once data is collected, all electronic data will be kept in a passcoded file in a locked home office. If any information is printed out, the hard copies will be stored in a locked cabinet in a locked home office.

What if I want to leave the study?
You have the right to refuse to participate or to withdraw at any time, without penalty. If you do withdraw, it will not affect you in any way.

What about new information/changes in the study?
If significant new information relating to the study becomes available which may relate to your willingness to continue to participate, this information will be provided to you.

Voluntary Consent by Participant:
By completing this survey, you are agreeing that you have read and fully understand the contents of this document and are openly consenting to take part in this study. All of your questions concerning this study have been answered. By completing the survey, you are agreeing that you are 18 years of age or older and are agreeing to participate in the study described to you in this document. You are invited to print this document for your records.

APPENDIX B: INSTRUMENTATION

Page

Perceived Stress Scale (PSS)

The following questions ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate how often you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer each question fairly quickly. That is, don't try to count up the number of times you felt a particular way, but rather indicate the alternative that seems like a reasonable estimate. For each question, choose from the following alternatives:

0 = never
1 = almost never
2 = sometimes
3 = fairly often
4 = very often

1. In the last month, how often have you been upset because of something that happened unexpectedly?
2. In the last month, how often have you felt that you were unable to control the important things in your life?
3. In the last month, how often have you felt nervous and "stressed"?
4. In the last month, how often have you dealt successfully with irritating life hassles?
5. In the last month, how often have you felt that you were effectively coping with important changes that were occurring in your life?
6. In the last month, how often have you felt confident about your ability to handle your personal problems?
7. In the last month, how often have you felt that things were going your way?
8. In the last month, how often have you found that you could not cope with all the things that you had to do?
9. In the last month, how often have you been able to control irritations in your life?
10. In the last month, how often have you felt that you were on top of things?
11. In the last month, how often have you been angered because of things that happened that were outside of your control?
12. In the last month, how often have you found yourself thinking about things that you have to accomplish?
13. In the last month, how often have you been able to control the way you spend your time?
14. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

Experiences in Close Relationships – Revised (ECR-R)

Please take a moment to think about your overall experiences in romantic/love relationships, including both your previous and current relationship experiences. Please answer the following questions with these experiences in mind. For each item, indicate how much you agree or disagree with the statement on a scale from 1 (strongly disagree) to 7 (strongly agree).

1 = strongly disagree
2 = disagree
3 = slightly disagree
4 = neutral
5 = slightly agree
6 = agree
7 = strongly agree

1. I prefer not to be too close to romantic partners
2. My partner only seems to notice me when I'm angry
3. I prefer not to show my partner how I feel deep down
4. Sometimes romantic partners change their feelings about me for no apparent reason
5. I usually discuss my problems and concerns with my partner
6. I do not often worry about being abandoned
7. I tell my partner just about everything
8. I'm afraid that once a romantic partner gets to know me, he or she won't like who I really am
9. I get uncomfortable when a romantic partner wants to get very close
10. My romantic partner makes me doubt myself
11. It helps to turn to my romantic partner in times of need
12. I rarely worry about my partner leaving me
13. I am nervous when partners get too close to me
14. It makes me mad that I don't get the affection and support I need from my partner
15. It's easy for me to be affectionate with my partner
16. I worry that I won't measure up to other people
17. It's not difficult for me to get close to my partner
18. My desire to be very close sometimes scares people away
19. I am very comfortable being close to romantic partners
20. I find that my partner(s) don't want to get as close as I would like
21. I talk things over with my partner
22. I worry a lot about relationships
23. I feel comfortable sharing my private thoughts and feelings with my partner
24. When I show my feelings for romantic partners, I'm afraid they won't feel the same way about me
25. I don't feel comfortable opening up to romantic partners

26. When my partner is out of sight, I worry that he or she might become interested in someone else
27. I find it relatively easy to get close to my partner
28. I often wish that my partner's feelings for me were as strong as my feelings for him or her
29. I find it easy to depend on romantic partners
30. I often worry that my partner doesn't really love me
31. I feel comfortable depending on romantic partners
32. I worry that romantic partners won't care about me as much as I care about them
33. I find it difficult to allow myself to depend on romantic partners
34. I often worry that my partner will not want to stay with me
35. My partner really understands me and my needs
36. I'm afraid that I will lose my partner's love

Dyadic Coping Inventory

The following questions are designed to measure how you and your partner cope with stress. Please indicate the first response that you feel is appropriate. Please be as honest as possible. There are no wrong answers. Please respond to each item by marking how often that statement is true in your relationship. For each question, choose from the following alternatives:

0 = never
1 = almost never
2 = sometimes
3 = fairly often
4 = very often

This section is about how you communicate your stress to your partner.

1. I let my partner know that I appreciate his/her practical support, advice, or help.
2. I ask my partner to do things for me when I have too much to do.
3. I show my partner through my behavior when I am not doing well or when I have problems.
4. I tell my partner openly how I feel and that I would appreciate his/her support.

This section is about what your partner does when you are feeling stressed.

5. My partner shows empathy and understanding to me.
6. My partner expresses that he/she is on my side.
7. My partner blames me for not coping well enough with stress.
8. My partner helps me to see stressful situations in a different light.
9. My partner listens to me and gives me the opportunity to communicate what really bothers me.
10. My partner does not take my stress seriously.
11. My partner provides support, but does so unwillingly and unmotivated.
12. My partner takes on things that I normally do in order to help me out.
13. My partner helps me analyze the situation so that I can better face the problem.
14. When I am too busy, my partner helps me out.
15. When I am stressed, my partner tends to withdraw.

This section is about how your partner communicates when he/she is feeling stressed.

16. My partner lets me know that he/she appreciates my practical support, advice, or help.
17. My partner asks me to do things for him/her when he has too much to do.
18. My partner shows me through his/her behavior that he/she is not doing well or when he/she has problems.
19. My partner tells me openly how he/she feels and that he/she would appreciate my support.

This section is about what you do when your partner makes his/her stress known.

20. I show empathy and understanding to my partner.
21. I express to my partner that I am on his/her side.
22. I blame my partner for not coping well enough with stress.
23. I tell my partner that his/her stress is not that bad and help him/her to see the situation in a different light.
24. I listen to my partner and give him/her space and time to communicate what really bothers him/her.
25. I do not take my partner's stress seriously.
26. When my partner is stressed I tend to withdraw.
27. I provide support, but do so unwillingly and unmotivated because I think that he/she should cope with his/her problems on his/her own.
28. I take on things that my partner would normally do I n order to help him/her out.
29. I try to analyze the situation together with my partner in an objective manner and help him/her to understand and change the problem.
30. When my partner feels he/she has too much to do, I help him/her out.

This section is about what you and your partner do when you are both feeling stressed.

31. We try to cope with the problem together and search for ascertained solutions.
32. We engage in a serious discussion about the problem and think through what has to be done.
33. We help one another to put the problem in perspective and see it in a new light.
34. We help each other relax with such things as massage, taking a bath together, or listening to music together.
35. We try to cope with stress by being affectionate with each other and making love.

This section is about how you evaluate your coping as a couple.

36. I am *satisfied* with the support I receive from my partner and the way we deal with stress together.
37. I find that, as a couple, the way we deal with stress together is *effective*.

Relationship Assessment Scale (RAS)

The following questions are designed to measure your feelings about your current relationship.

1. How well does your partner meet your needs?
   a) Poorly b) – c) Average d) – e) Extremely well

2. In general, how satisfied are you with your relationship?
   a) Unsatisfied b) – c) Average d) – e) Extremely satisfied

3. How good is your relationship compared to most?
   a) Poor b) – c) Average d) – e)Excellent

4. How often do you wish you hadn't gotten in this relationship?
   a) Never b) – c) Average d) e) Very often

5. To what extent has your relationship met your original expectations?
   a) Hardly at all b) – c) Average d) – e) Completely

6. How much do you love your partner?
   a) Not much b) – c) Average d) – e) Very much

7. How many problems are there in your relationship?
   a)Very few b) – c) Average d) – e) Very many

Appendix 8: Marital Instability Index – Brief Form

The following questions are designed to assess your thoughts about the stability of your current relationship. For each question, please choose from the following alternatives:

1 = never
2 = occasionally
3 = often
4 = very often

1. Even people who get along quite well with their spouse sometimes wonder whether their marriage is working out. Have you ever thought that your marriage might be in trouble?

2. Has the thought of getting a divorce or separation crossed your mind?

3. Have you or your partner seriously suggested the idea of divorce?

4. Have you discussed divorce or separation from your partner with a close friend?

5. Have you and your partner talked about consulting an attorney?

Division of Household Tasks

The following questions are designed to measure how you and your partner handle household tasks. Please indicate who typically does the following tasks:

1= done most of the time by my partner
2= done more often by my partner
3= done equally often by both of us
4= done more often by me
5= done most of the time by my partner

1. Cooking and planning meals

2. Housecleaning (such as dusting, vacuuming, cleaning the bathroom)

3. Shopping for groceries and household goods

4. Cleaning up after meals (including the dishes)

5. Laundry activities (including washing and ironing)

6. Overall, how satisfied are you with the way household tasks are divided between you and your partner?

1 = completely dissatisfied
2 = mostly dissatisfied
3 = somewhat satisfied
4 = mostly satisfied
5 = completely satisfied

Demographic Questionnaire

1. What is your relationship status?
    a. Single
    b. In a committed heterosexual relationship – not living together
    c. In a committed same-sex relationship – not living together
    d. In a committed heterosexual relationship – living together
    e. In a committed same-sex relationship – living together
    f. Married
    g. Separated or Divorced
    h. Widowed

(Based on the response to question 1, participants were directed to the appropriate questionnaires through the use of skip logic.)

2. In what degree program are you enrolled?
    a. Master's (M.S., M.A., or M.Ed.)
    b. Doctoral (Ph.D.)
    c. Other (please specify)

3. At what point in the program are you?
    a. First year, first semester
    b. First year, second semester
    c. Second year
    d. Third year
    e. Fourth year or beyond

4. Have you begun working on your dissertation (doctoral students only)?
    a. Yes, I am working on dissertation
    b. No, I have not yet started on dissertation
    c. N/A, I am a master's student

5. Are you a part-time or full-time student (as defined below)?
    a. Part-time (currently enrolled in less than 9 credit hours)
    b. Full-time (currently enrolled in at least 9 credit hours)

6. What is your age?

7. What is your gender?
    a. Female
    b. Male

8. What is your race/ethnicity?
    a. African-American
    b. Asian
    c. Caucasian
    d. Latino/a
    e. Native American
    f. Other (please specify)

9. What is your annual household income?
    a. Less than 25,000
    b. 25,000 – 49,999
    c. 50,000 – 74,999
    d. 75,000 – 99,999
    e. 100,000 or more

10. How many children live in your home?

Relationship Demographic Questions:
(only participants who reported being in a relationship currently were given these questions)

11. How many years have you been with your current partner or spouse?

12. If you are married, is this your first marriage?
    a. Yes
    b. No
    c. N/A – I'm not married

13. What is your partner's employment status?
    a. Employed full-time
    b. Employed part-time
    c. Unemployed
    d. Other (please specify)

14. What is the highest level of education completed by your spouse (or partner)?
    a. High school diploma or GED
    b. Some college
    c. Associate's degree
    d. Bachelor's degree
    e. Master's degree
    f. Doctoral degree
    g. Other (please specify)

15. Is your partner currently a student?
    a. Yes
    b. No

16. What have been the most significant stressors on your relationship during your time in graduate school?

17. What have been the most important and/or effective coping strategies you and your partner have used during your time in graduate school?

Follow up Questions:

18. Do you have any comments or questions for the researcher?

19. What suggestions or feedback do you have about how to improve future research in this area?

From: Sheldon Cohen <scohen@andrew.cmu.edu>
To: Kerrie Kardatzke <knkardat@uncg.edu>
Date: Fri, Sep 26, 2008 at 7:17 PM
Subject: RE: Permission to use PSS in dissertation

Kerrie, It's fine with me if you use the PSS in your dissertation. Information on the PSS is available on our website: www.psy.cmu.edu/~scohen. Click on scales on the front page. Good luck with your work. sc

Sheldon Cohen, PhD
Robert E. Doherty Professor of Psychology
Department of Psychology
Carnegie Mellon University
Pittsburgh, PA 15213

****

From: Kerrie Kardatzke [mailto:knkardat@uncg.edu]
Sent: Friday, September 26, 2008 3:44 PM
To: scohen@cmu.edu
Subject:Permission to use PSS in dissertation

Hello Dr. Cohen,

My name is Kerrie Kardatzke, and I am a PhD student in Counselor Education at the University of North Carolina at Greensboro. I am interested in using the PSS in my dissertation study (Perceived Stress, Adult Attachment, Dyadic Coping and Marital Satisfaction of Counseling Graduate Students). Although the items have been published in a number of articles, I want to obtain explicit permission from you to administer and include the instrument as an appendix in my dissertation. Also, I would appreciate any additional information that you think may be helpful (most recent scoring instructions, psychometrics, etc.).

Thank you for your time!

Kerrie Kardatzke

From: BODENMANN Jose Guy <joseguy.bodenmann@unifr.ch>
Date: Mon, Aug 11, 2008 at 2:40 PM
Subject: AW: Dyadic Coping Questionnaire (FDCT-N)
To: Kerrie Kardatzke <knkardat@spartan.uncg.edu>

Dear Kerrie

Thanks for your mail. I would be please if I can help you with my dyadic coping measure. The latest version of the FDCT-N is currently the Dyadic Coping Inventory (DCI) with 37 items. We validated this version in an extensive study. Please find enclosed the measure and some information about scoring and psychometrics. I am very interested in your findings. Please let me know when you have data. Good luck with your study.

Best,
Guy

Prof. Dr. Guy Bodenmann
University of Fribourg
Clinical Psychology and Relationships
Director of the Institute for Family Research and Counseling
Rue Faucigny 2
CH-1700 Fribourg/Switzerland
www.unifr.ch/iff

****

Von: Kerrie Kardatzke [mailto:knkardat@spartan.uncg.edu]
Gesendet: So 10.08.2008 06:34
An: BODENMANN Jose Guy
Betreff: Dyadic Coping Questionnaire (FDCT-N)

Dr. Bodenmann,

My name is Kerrie Kardatzke, and I am a doctoral student in Counselor Education at the University of North Carolina at Greensboro. I am in the early phases of my dissertation work on the marital satisfaction of counseling graduate students. I plan to look at how attachment style impacts the dyadic coping strategies and marital satisfaction of students and their partners. I have read several of your articles and the book, Couples Coping with Stress...all of which have been very useful in helping me to focus my study. I am very interested in seeing a copy of your Dyadic Coping Questionnaire (FDCT-N), and possibly using it in my dissertation study. Could you please let me know how I can obtain a copy of the instrument for review and what I would need to do to get permission to use it in my study?

Thank you for your time!

Kerrie Kardatzke

From: Hendrick, S <s.hendrick@ttu.edu>
To: Kerrie Kardatzke <knkardat@uncg.edu>
Date: Sun, Sep 28, 2008 at 11:57 AM
Subject: RE: Permission to use RAS in dissertation

Kerrie,

Yes, you have my full permission to use the RAS, and to that end, I have attached a copy. Scoring instructions are on that copy. The most recent full set of psychometrics is in a 1998 article in the Journal of Social and Personal Relationships. If you don't have that, I can send it be regular mail, if you give me your full mailing address. Good luck.
Susan

Susan S. Hendrick, Ph.D.
Paul Whitfield Horn Professor of Psychology
Department of Psychology
Texas Tech University
Lubbock, TX 79409-2051

****

From: Kerrie Kardatzke [mailto:knkardat@uncg.edu]
Sent: Friday, September 26, 2008 1:36 PM
To: Hendrick, S
Subject: Permission to use RAS in dissertation

Hello Dr. Hendrick,

My name is Kerrie Kardatzke, and I am a PhD student in Counselor Education at the University of North Carolina at Greensboro. I am interested in using the RAS for my dissertation study (Perceived Stress, Adult Attachment, Dyadic Coping, and Marital Satisfaction of Counseling Graduate Students). Although the items have been reprinted in a number of publications, I want to obtain explicit permission from you to administer and include the instrument as an appendix in my dissertation. Also, I would appreciate any additional information that you think I may find useful (most recent scoring instructions, psychometrics, etc.).

Thank you for your time!

Kerrie Kardatzke

APPENDIX C: PILOT STUDY

Page

Pilot Study

The primary purpose of the pilot study was to field test the instrumentation and data collection procedures for clarity and feasibility. Additionally, the research hypotheses were tested with pilot study data in order to test the data analysis procedures and to create and test a database intended to be used for the full study. Although the sample size is inadequate to draw conclusions from this data, the research questions and results are offered below.

Research Questions and Hypotheses

Research Question 1: Are there significant mean differences between master's and doctoral students in perceived stress level, attachment anxiety, attachment avoidance, dyadic coping, and marital satisfaction?

Hypothesis 1a: There will be no significant mean difference in perceived stress level between master's and doctoral students.

Hypothesis 1b: There will be no significant mean difference in attachment anxiety between master's and doctoral students.

Hypothesis 1c: There will be no significant mean difference in attachment avoidance between master's and doctoral students.

Hypothesis 1d: There will be no significant mean difference in dyadic coping between master's and doctoral students.

Hypothesis 1e: There will be no significant mean difference in marital satisfaction between master's and doctoral students.

Research Question 2: What proportion of the variance in marital satisfaction can be uniquely accounted for by perceived stress level, attachment anxiety, attachment avoidance, and dyadic coping?

Hypothesis 2: Perceived stress level, attachment anxiety, attachment avoidance, and dyadic coping will each account for a significant proportion of the variance in marital satisfaction among counseling trainees.

Research Question 3: To what extent is the relationship between perceived stress and marital satisfaction moderated by dyadic coping?

*Hypothesis 3***:** The negative relationship between perceived stress and marital satisfaction will be moderated by dyadic coping. At low levels of dyadic coping, increased levels of perceived stress will have a greater negative effect on marital satisfaction than at high levels of dyadic coping.

Research Question 4: To what extent is the relationship between attachment anxiety and marital satisfaction mediated by dyadic coping?

Hypothesis 4a: There will be a significant, negative relationship between attachment anxiety and marital satisfaction.

Hypothesis 4b: There will be a significant, negative relationship between attachment anxiety and dyadic coping.

Hypothesis 4c: There will be a significant, positive relationship between dyadic coping and marital satisfaction.

Hypothesis 4d: The relationship between attachment anxiety and marital satisfaction will be partially mediated by dyadic coping.

Research Question 5: To what extent is the relationship between attachment avoidance and marital satisfaction mediated by dyadic coping?

Hypothesis 5a: There will be a significant, negative relationship between attachment avoidance and marital satisfaction.

Hypothesis 5b: There will be a significant, negative relationship between attachment avoidance and dyadic coping.

Hypothesis 5c: There will be a significant, positive relationship between dyadic coping and marital satisfaction.

Hypothesis 5d: The relationship between attachment avoidance and marital satisfaction will be partially mediated by dyadic coping.

Participants

Participants for the pilot study were recruited from one small CACREP-accredited counseling program in the southeastern United States. Out of 53 students invited, 14 responded. Six of the 14 respondents met the eligibility criteria of the current study, all of which were Caucasian females. Additional demographic information can be found in Table 3.

Procedures

A request to complete the study was submitted to and approved by the University of North Carolina at Greensboro's Institutional Review Board. Permission was obtained by a representative of the selected counseling program to contact students via email in order to invite them to participate in the study. The following information was obtained in order to contact students and calculate an estimated response rate: total number of

master's and doctoral students, estimated number of both married master's and doctoral students, and a list of all student email addresses. Once this information was obtained, an email was sent to all students, inviting them to take part in a study examining factors that impact the experiences of counseling graduate students. Although only data from married participants was analyzed for this study, all students were invited to participate and this data will be saved for future analyses. Therefore, the description of the study was intentionally broad, in order to increase general appeal. The email included a brief description of the study, approximate time required to complete the survey, and a link to the survey. Students who chose to participate could then link to the survey, which was on SurveyMonkey, an online site for electronic survey research.

Instrumentation

Participants completed an electronic survey that contained several instruments, including the Perceived Stress Scale (PSS; Cohen et al., 1983), the Experiences in Close Relationships Questionnaire – Revised (ECR-R; Fraley, Waller, & Brennan, 2000), the Dyadic Coping Inventory (DCI; G. Bodenmann, personal communication, August 11, 2008), The Relationship Assessment Scale (RAS; Hendrick, 1988), a questionnaire addressing the division of household tasks, and a demographic questionnaire. A copy of these instruments is included in Appendix B.

The first page of the survey included informed consent and instructions to answer as honestly as possible. The second page of the survey contained a demographic question about relationship status. Based on responses to this question, participants were directed automatically to the appropriate questionnaires. Students in married or cohabiting

relationships were given access to all of the instruments; students in committed, non-cohabiting relationships were given access to all instruments except the Division of Household Tasks; single, divorced, or widowed students were given access only to the Perceived Stress Scale, Experiences in Close Relationships-Revised, and the demographic questionnaire. No identifying information was attached to the surveys. The final page of the survey included a brief feedback form, which included the following questions:

- How long did it take you to complete the survey?
- Were the instructions clear?
- Do you have any suggestions for the researcher?

Table 15

Demographic Description of the Pilot Study Sample (N=6)

Variable		**Mean**	**n**	**%**
Age:		M = 34.17 Range = 27-42	6	100.0%
Sex:	Female		6	100.0%
	Male		0	0%
Race:	African American		0	0%
	Asian		0	0%
	Caucasian		6	100.0%
	Latino/a		0	0%
	Native American		0	0%
	Other, please specify		0	0%
Degree program:	Master's		2	33.3%
	Doctoral		2	66.7%
Degree year:	First year		2	33.3%
	Second year		1	16.7%
	Third year		0	0%
	Fourth year		3	50.0%
Begun dissertation:	Yes		3	50.0%
(If PhD)	No		1	16.7%
	N/A (master's)		2	33.3%
Part or Full Time	Part-time		3	50.0%
Status:	Full-time		3	50.0%
Household income:	Less than 25,000		0	0%
	25,000 - 49,999		0	0%
	50,000 - 74,999		1	16.7%
	75,000 - 99,999		2	33.3%
	100,000 or more		3	50.0%

Table 15 (Continued)

Demographic Description of the Pilot Study Sample (N=6)

Variable		**Mean**	**n**	**%**
First marriage:	Yes		5	83.3%
	No		0	0%
	N/A		1	16.7%
Years Married:	3		1	16.7%
	4		2	33.3%
	6		1	16.7%
	19		2	33.3%
Number of children:	0		3	50.0%
	1		1	16.7%
	2		1	16.7%
	3		1	16.7%
Partner Employment Status:	Full-time		6	100.0%
	Part-time		0	0%
	Unemployed		0	0%
Partner Education:	HS diploma or GED		0	0%
	Some college		1	16.7%
	Associate's degree		0	0%
	Bachelor's degree		4	66.7%
	Master's degree		0	0%

Table 16

Pilot Instrument Descriptive Statistics (N=6)

Instrument	**M**	**SD**	**α=**	**# of Items**
Perceived Stress Scale	30.67	8.16	.92	13*
Experiences in Close Relationships - Revised				
Avoidance subscale	37	13.55	.85	18
Anxiety subscale	40.17	13.91	.86	18
Dyadic Coping Inventory				
Self subscale	61.67	6.15	.85	15
Partner subscale	60.33	6.53	.79	15
Total scale	141.83	13.51	.92	35
Relationship Assessment Scale	26	3.95	.88	6*

*****One item was excluded from the descriptive statistics due to zero variance on one item.

Table 17

Pearson Product Moment Correlations (Pilot)

Variable	Perceived Stress	Attachment Avoidance	Attachment Anxiety	Dyadic Coping	Marital Satisfaction
Perceived Stress	-				
Attachment Avoidance	.57	-			
Attachment Anxiety	.42	.93*	-		
Dyadic Coping	-.53	-.74	-.79	-	
Marital Satisfaction	-.76	-.44	-.35	.63	-

* significant at the $p < .01$

Table 18

MANOVA: Main Effects of Degree Program (Pilot)

Multivariate Test						
	Value	**F**	**Hyp df**	**Error df**	**Sig.**	**η²**
Roy's Largest Root	.387	.097	4	1	.968	.279

Grouping Variable: Degree Program (Master's or Doctoral)

*significant at the p < .05

Between-Subjects Effects				
Dependent Variables	**F**	**df**	**Sig.**	**η²**
Stress	.274	1	.629	.064
Avoidance	.167	1	.704	.04
Anxiety	.191	1	.685	.046
Dyadic Coping	.102	1	.766	.025
Marital Satisfaction	2.118	1	.219	.346

*significant at the p < .05

TABLE 19

Multiple Regression: Predictors of Marital Satisfaction (Pilot)

Variable	**Adjusted R^2**	**Std. Error**	**β**	**t**
Model summary	-.451			
Stress		.371	-.579	-.754
Avoidance		.509	-.03	-.017
Anxiety		.515	.434	.239
Dyadic Coping		.289	.649	.675

Dep. Variable = Marital Satisfaction

* significant at the p < .05

Table 20

Multiple Regression: Dyadic Coping as a Moderator of Perceived Stress and Marital Satisfaction (Pilot)

	Adj. R^2	Std. Error	β	t
Model Summary	.572			
Stress		1.248	-4.298	-1.667
Dyadic Coping		1.223	-5.559	-1.368
Stress X Dyadic Coping		.188	-5.053	-1.453

Dep. Variable = Marital Satisfaction

* significant at the $p < .05$

Table 21

Multiple Regression: Dyadic Coping as a Mediator of Attachment Anxiety and Marital Satisfaction (Pilot)

Model	(Adj. R^2)	Variable	Std. Error	β	t	Zero-order	Part
1	**(-.097)**	Anxiety	.133	-.35	-.746	-.35	-.35
2	**(.103)**	Anxiety	.197	.406	.586	-.35	.248
		Dyadic Coping	.209	.954	1.376	.633	.583

Dep. Variable = Marital Satisfaction

* significant at the $p < .05$

Table 22

Multiple Regression: Dyadic Coping as a Mediator of Attachment Avoidance and Marital Satisfaction (Pilot)

Model	(Adj. R^2)	Variable	Std. Error	β	t	Zero-order	Part
1	**(-.007)**	Avoidance	.131	-.441	-.983	-.441	-.441
2	**(.004)**	Avoidance	.195	.067	.101	-.441	.045
		Dyadic Coping	.201	.683	1.022	.633	.456

Dep. Variable = Marital Satisfaction

* significant at the $p < .05$