A GENDERED PERSPECTIVE ON THE EXAMINATION OF RELATIONAL HEALTH, STRESS AND COPING, AND ATHLETE SATISFACTION AMONG FEMALE COLLEGE ATHLETES

By

JAIME LA FARR JENKINS

A DISSERTATION PRESENTED TO THE GRADUATE SCHOOL OF THE UNIVERSITY OF FLORIDA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

UNIVERSITY OF FLORIDA

2005
This dissertation is dedicated to my coaches and mentors:
Art and Linda Kranick;
and to the memory of my brother-in-law, Douglas Henry Jenkins.
ACKNOWLEDGMENTS

The meaning of this accomplishment is enhanced by the limitless source of love and support from my family and friends. First and foremost I thank my partner in life, Randy, for his love and personal sacrifice. Without his support, this project would never have come to fruition. I also would like to thank my daughter Lindsay. Her presence is the inspiration behind my words, and she brings a sense of joy to my life I never knew before her. Special thanks go to my mother, Sylvia, who was perhaps the greatest single influence on my life. My mother’s willingness to commute from Ocala for the last 2 years to look after our daughter made this accomplishment possible. I am also thankful for my father, who often accompanied my mother and helped me and my family through many transitions.

I feel tremendously blessed to have my sister-in-law, Jennifer Rowe, her husband Bob Rowe, mother-in-law Cathy Jenkins, father-in-law Orvin Jenkins, and his wife Recie in my life. They were always ready with loving words and stepped in to help in any and every way. Special thanks go to my brothers, Craig and Scott, and their families for their continued support. I am especially grateful to my grandmother, Jeanne Brooks, for her continued emotional support. Without her I would not have been in a position to make this goal become a reality.

Special thanks go to Natalie Arce, my mentor and colleague but most importantly my friend. Her support was instrumental in completing this project. I would like to thank all of my friends for their support, especially my colleagues in the counseling

iv
profession: Sherry, Ali, and Bill. I would like to extend my appreciation to Grace Hill for her editing skills and, most importantly, her friendship; to Evelyn Chiang for her statistical guidance; and to my coworkers who helped me redirect and accomplish this goal. Special thanks go to my committee members: Dr. James Archer, Dr. Roberta Seldman, Dr. David Miller, Dr. Peter Sherrard, and mentor Dr. Peter Giacobbi. Also, I would like to thank the founders of the Relational Cultural Theory for creating the paradigm and finding the words to articulate my life experiences. In conclusion, my deepest thanks and appreciation go to the women who participated in this study. I am especially grateful to the head coaches and members of the athletic association for making this possible, especially Becky Burleigh, Mary Wise, and Tom Jones, all of whom took time out of their schedule and permitted me to work with their athletes on three separate occasions during my years as a graduate student.
TABLE OF CONTENTS

ACKNOWLEDGMENTS ................................................ iv
LIST OF TABLES ................................................................ viii
ABSTRACT ..................................................................... ix

CHAPTER

1 INTRODUCTION ................................................... 1
   Theoretical Frameworks ........................................... 2
   Overview ......................................................... 5
   Statement of the Problem ....................................... 11
   Need for the Study ............................................... 15
   Purpose of the Study ............................................. 17
   Rationale for the Approach .................................... 18
   Research Questions .............................................. 19
   Definition of Terms .............................................. 20

2 LITERATURE REVIEW ............................................. 24
   Introduction ....................................................... 24
   The Relational Cultural Theory: A Model for Female Athletes . 24
   The RCT, Depression, and the Stress and Coping Process ....... 47
   A Transactional Theory of Stress and Coping; The CMRT of Emotion .... 50
   The Transactional Process of Stress and Coping ................. 61
   Rationale .......................................................... 75
   Hypotheses and Research Questions ......................... 83
   Summary .......................................................... 85

3 METHODOLOGY .................................................. 87
   Overview .......................................................... 87
   Population .......................................................... 87
   Sampling Procedures ............................................ 89
   Research Questions and Hypotheses ......................... 90
   Design and Data Analysis .................................... 92
   Instruments ......................................................... 95
   Limitations of the Measurement Instruments and Support for the Methodology . 107
4 RESULTS ........................................................ 113
  Description of the Study ............................................... 113
  Data Analyses and Results .............................................. 114
  Summary .......................................................... 119

5 DISCUSSION .......................................................... 122
  Summary of the Research Findings ................................... 122
  The Stress and Coping Process and Athlete Satisfaction .......... 126
  Implications and Recommendations ................................... 131
  Recommendations for Research ....................................... 138
  Summary .......................................................... 141

APPENDIX

A LETTER TO COACHES ............................................... 144
B FLYER .............................................................. 146
C RELATIONAL HEALTH INDICES QUESTIONNAIRE ............... 147
D PERCEIVED STRESS SCALE ........................................ 150
E COPING CHECKLIST FOR SPORT .................................... 151
F ATHLETE SATISFACTION QUESTIONNAIRE ......................... 152
REFERENCES ........................................................... 154
BIOGRAFICAL SKETCH .................................................. 173
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-1</td>
<td>Descriptive statistics for subscale measures</td>
<td>114</td>
</tr>
<tr>
<td>4-2</td>
<td>Regression model for the three relational health subscales (e.g., community, teammate and head coach) predicting total athlete satisfaction</td>
<td>115</td>
</tr>
<tr>
<td>4-3</td>
<td>Regression model for perceived stress predicting total relational health</td>
<td>116</td>
</tr>
<tr>
<td>4-4</td>
<td>Regression model for engagement coping predicting athlete satisfaction</td>
<td>117</td>
</tr>
<tr>
<td>4-5</td>
<td>Regression model for stress appraisal and total athlete satisfaction</td>
<td>118</td>
</tr>
<tr>
<td>4-6</td>
<td>Regression model for relational health as a mediator between perceived stress and athlete satisfaction</td>
<td>119</td>
</tr>
</tbody>
</table>
A GENDERED PERSPECTIVE ON THE EXAMINATION OF RELATIONAL HEALTH, STRESS AND COPING, AND ATHLETE SATISFACTION AMONG FEMALE COLLEGE ATHLETES

By

Jaime La Farr Jenkins

December 2005

Chair: James Archer, Jr.
Major Department: Counselor Education

The purpose of this study was to examine female college athletes' relationships as they related to perceived stress, coping responses, and athlete satisfaction. Relational health, which was defined according to the constructs of growth-fostering relationships as the core of women’s self-esteem and identity, was examined as a potential mediator of perceived stress on athlete satisfaction. The sample was drawn from 197 degree-seeking female undergraduate athletes who participated on one or more varsity athletic teams at a large southeastern university and Division I athletic institution during the 2004-2005 academic year. A total of 103 female college athletes across seven different sports completed the Relational Health Indices (RHI), the Perceived Stress Scale (PSS10), the Coping Checklist for Sport (CCS), and the Athlete Satisfaction Questionnaire (ASQ). Data were analyzed using regression analyses, and the results indicated that relational health with members in the athletic community and head coaches was associated significantly with total athlete satisfaction across all 15 subscales. Furthermore, a significant, inverted relationship between perceived stress and relational health was
found among the female college athletes who participated in this study. Although there was not a significant relationship between relational health and coping style (i.e., engagement and disengagement coping) at the $p < .05$ level, engagement coping was positively associated with athlete satisfaction. In conclusion, relational health significantly mediated the relationship between perceived stress and athlete satisfaction. The implications of these findings for theory, practice, and research are discussed along with recommendations for future research.
CHAPTER 1
INTRODUCTION

Title IX legislation dramatically changed the face of competitive sport. This is illustrated most completely in the number of female intercollegiate student athletes, which rose from approximately 90,000 in 1988-1989 to nearly 150,000 in 1999 (Hawes, 2002). Because women benefit from college scholarships and enjoy careers as professional athletes, the National Collegiate Athletic Association (NCAA) recorded a 66% increase in the number of female college athletes over the course of the same decade and report that there are over 2.5 million girls participating in high school athletics today (Hawes, 2002). Clearly, women currently enjoy many unprecedented opportunities previously available only to men, as they now represent over 40% of the student-athlete population (Hawes). Nevertheless, sport remains male dominated in terms of its economic and physical presence in our culture, which perpetuates a “clear hierarchical structure that is widely embraced” (Gill, 2001, p. 368). Thus, sport practitioners face the challenge of supplementing theoretical frameworks that lack an emphasis on the unique experiences of female athletes.

The primary goal of this research study is to expand on what researchers know about female college athletes’ relational health with teammates, head coach, and the athletic community and how this relates to their athletic experience. A secondary goal of this research is to augment what researchers know about the stress and coping processes among female college athletes and how this relates to their psychological health and
athlete satisfaction. Two theories were chosen to guide the research process: a contemporary feminist perspective of psychological development and a transactional theory of stress and coping. The relational cultural theory (RCT; Jordan, Kaplan, Miller, Stiver & Surrey, 1991) is a relational model of psychological health that embraces the unique qualities of women across different cultures and backgrounds. The cognitive-motivational-relational theory of emotion (CMRT; Lazarus, 1999) is a transactional theory of stress and coping (Folkman & Lazarus, 1985, 1988; Lazarus, 1999, 2000). By integrating these theories, an alternative theoretical and methodological approach to examine athlete satisfaction and psychological well-being in female college athletes emerges. The RCT (Jordan et al., 1991) and the CMRT (Lazarus, 1999) are introduced in the following paragraphs.

**Theoretical Frameworks**

**The Relational Cultural Theory**

The RCT is a theoretical model of psychological health for women, developed by scholars and researchers at the Stone Center at Wellesley College. Theoretical concepts of the RCT include mutual initiative and responsiveness, and other constructs that facilitate positive connections to others as the central organizing feature in women’s lives (Berger, 1994; Gilligan, 1982; Jordan, 1997b; Miller, 1986; Miller & Stiver, 1997; Surrey, 1985). Relational health is an important component of healthy psychological development in females and is constructed through mutual understanding, emotional support, and the commitment of individuals to the growth of each individual within a collective unit (Gilligan, 1994; Jordan et al., 1991; Surrey, 1985). Women develop a sense of relational competence from establishing and maintaining these growth fostering relationships as evidenced by “movement toward mutuality, developing anticipatory
empathy, being open to being influenced, experiencing vulnerability as an inevitable place of potential growth rather than danger, creating good connections rather than exercising power over others as the path of growth” (Jordan, 1994, p. 3). Relational theorists (Gilligan, 1982; Jordan et al., 1991; Miller, 1986) contend that relationships within the community, with peers and with mentors in particular, are central to women’s psychological growth and development. According to the theoretical tenets of the RCT, it is likely that the quality of relationships with members of the athletic community, teammates and coaches have a profound impact on female college athletes’ emotional and psychological wellness.

Women rely on healthy connections through relationships as the central source of personal growth (Jordan et al., 1991). Furthermore, researchers have established a link between intimate supportive relationships as a protective factor against depression and stress (Arce, 2004; Belle, 1982). Findings from recent sport psychology studies in which the researcher suggested that female athletes frequently rely on social support to cope with or manage stressful situations in sport support this link (Anshel, Kim, Kim, Chang & Eom, 2001; Crocker & Graham, 1995; Madden, Kirkby, & McDonald, 1989; Ptacek, Smith & Zanas, 1992). Furthermore, sport psychology researchers have demonstrated that relationships with coaches, teammates or social support in general are important factors in the stress and coping process (Burton, 1988; Crocker, 1992; Folkman & Lazarus, 1988; Giacobbi et al., 2004; Gould, Finch & Jackson, 1993; Jowett, 2003; Lazarus, 1999, 2000; Madden et al., 1989; Rees, Ingledew, & Hardy, 1999; Scanlon, Stein & Ravizza, 1991; Westre & Weiss, 1991).
A Transactional Theory of Stress and Coping

One widely cited stress and coping theory utilized by researchers and sport psychologists (Crocker & Graham, 1995; Giacobbi et al., 2004; Gould et al., 1993; Scanlon et al., 1991) that nicely complements the key concepts of the RCT is the cognitive motivation relational theory (CMRT). The theoretical concepts of this theory support a dynamic and bidirectional relationship between cognitive appraisal and the coping response (Folkman & Lazarus, 1988; Lazarus & Folkman, 1984). The transactional model of stress and coping predicts that situational appraisals are key determinants to athletes’ coping responses (Folkman & Lazarus, 1988).

Appraisals and reappraisals influence coping strategies and coping strategies impact both the current situation and future appraisals. Situational appraisals and coping responses evolve as they are influenced by the dynamic nature of personal challenges. For example, an individual’s subsequent appraisal of a stressful encounter could elicit a different emotional response than her or his initial response. As a result the individual amends her or his personal meaning of the stressful encounter in light of this new evaluation. This is otherwise known as relational meaning. Unlike previous models of stress and coping, CMRT takes into account shifts of attention and changes in the person-environment relationship which are essential in the stress analysis and appraisal. Within the context of relational meaning, practitioners can better understand individual differences between and within persons “in the emotional life” (Lazarus, 2000, p. 234).

The RCT and the CMRT share a dynamic, relational perspective that is inclusive of situational, cultural, and environmental influences on the human experience. The
theoretical synthesis of the RCT and CMRT presents researchers with a different method of examining stress, coping and satisfaction in female athletes through a model that embraces the unique ways in which women achieve and maintain psychological health. Social support and relationships in general are highlighted within the CMRT as influential aspects of the stress appraisal and the coping response. In terms of a shared epistemology, the RCT and CMRT are theoretical frameworks that grew from researchers’ efforts to expand the existing paradigm and broaden the capabilities of theory and research to reach and represent people in an accurate and inclusive way.

**Overview**

Conflict or negative interpersonal dynamics within the athletic context was found to be a source of stress for athletes (Scanlon et al., 1991), while social support in general served as a source of growth, empowerment and as a coping resource (Crocker & Graham, 1995; Giacobbi et al., 2004). Researchers found that social support in the context of sport had a significant impact on either athlete satisfaction, performance or on the stress and coping process (Crocker & Graham, 1995; Giacobbi et al., 2004; Lazarus, 2000; Scanlon et al., 1991). However, relational theorists Jordan and Hartling (2002) claimed that the definition of social support in research (Fiore, Becker, & Coppel, 1983) supports a “unilateral concept” (p. 64). Jordan and Hartling (2002) suggested that social support as defined in research represented “a one-way form of relating, something that one gets from others” (p. 64). By contrast, the theoretical tenets of the RCT define social support with the term “connection,” defined as a mutually shared experience of engagement, trust, and empathy with one or more individuals. Successful interpersonal
relationships also include qualities such as commitment, mutual understanding, and mutual respect (Greenleaf, Gould & Dieffenbach, 2001; Jordan et al., 1991; Jowett, 2003).

Consistent with the premise of the RCT, Jowett (2003) found that reciprocal behaviors and helping transactions between a coach and her athlete accounted for 44.3% and 6.2% of the athletic experience, and social support was included under a second-order theme entitled helping transactions. Jowett also reported that sport related behavior of an athlete was influenced by the nature of the coach-athlete relationship. Specifically, Jowett highlighted the “give and take” principle within the coach-athlete relationship based on the way in which both the athlete and the coach demonstrated the need for a mutually empowering experience in order to train or coach (p. 453). According to Jowett, “the study of interpersonal conflict in the coach-athlete relationship is important because it can impact relationship members’ level of stress, confidence, motivation, self-esteem, and performance accomplishments” (p. 446). Based on these reports, which illustrated the potential impact of relational health as defined by the RCT within the athletic experience, it seems reasonable that female college athletes rely on support from teammates, coaches and members in the athletic community as a coping resource.

Recent research within the sport psychology field suggested that not only do women athletes rely on social support as a coping resource, but also they depend on this resource more than men (Crocker & Graham, 1995; Madden et al., 1989; Scanlon et al., 1991).

Studies on gender differences in the context of sport cite not only the importance of the athlete-coach relationship, teammates and communities, but also the need for conditions conducive for female athletes to connect with others on their athletic
experienced (Bredemeir, 2001; Bump, 1986; Gill, 2001; Oglesby, 2001; Tuffey, 1995).

According to Tuffey (1995), female athletes typically communicate to establish and maintain relationships, whereas male athletes communicate to convey information and establish status. Female athletes develop competence, validate themselves as athletes by the feedback they get from significant others, seek one-on-one communication with the coach, and want the coach to be invested in their relationship (Tuffey). The influence of relationships on athlete satisfaction from a relational perspective is also evident from a number of studies (Allen & Howe, 1998; Black & Weiss, 1992; Nakamura, 1996). These findings are consistent with the basic theoretical concepts of the RCT in that a woman’s psychological development occurs through psychological connection and mutual engagement, and her self worth is formed from her ability to create and maintain relationships (Gilligan, 1982, Jordan, 1997a; Jordan et al., 1991; Miller & Stiver, 1997).

Coaches have great influence over an athlete’s development of self-esteem and level of satisfaction in performing her sport (Johnson, 1999; Barnett, Smoll, & Smith, 1992). Bredemeir (2001) wrote, “Connected coaching involves sharing power and decision making with participants, relies heavily on dialogue (rather than monologue), and seeks to build a sense of community among participants” (p. 415). Connection, in terms of relational health, includes having relationships that possess trust, open communication, confidence and sense of belonging with mentors, peers, and community (Jordan et al., 1991; Miller, 1986). For the purpose of this study, the term mentor refers specifically to the head coach, peers refers to teammates and the athletic community refers to all members of the sport management team such as trainers, physicians, counselors, advisors, nutritionists and assistant coaches. A positive relationship with members of the athletic community, and specifically with teammates and coaches, enhances resources for coping and psychological wellness.
Sport psychology scholars contend that social support from fellow athletes, coaches and members in the athletic community is related to important outcomes in sport including the athlete’s overall satisfaction and ability to cope with new challenges (e.g., Giacobbi et al., 2004; Petrie & Stoever, 1997; Rosennfeld, Richman & Hardy 1989; Tracey & Corlett, 1995; Weiss & Friedrichs, 1986; Westre & Weiss, 1991). However, in terms of a connection, the quality rather than the quantity of the female athlete’s relationships may be more important to an athlete’s successful experience compared to the number of relationships for a female athlete. According to Jou and Fukada (1997) the need for social support or the number of problems individuals face is a less strong predictor of happiness than the amount of support available to them. The nature of women’s relationships in terms of the quantity or quality of supportive peer relationships and social support has been studied by several scholars and the quality of these relationships has a greater impact on the mental and physical health rather than the number of relationships (Belle, 1982; VanderVoort, 1999; Weinstein, 2001). Nevertheless, few studies focused on the quality of relationships with a relational framework centered on psychological health among female college athletes.

To understand the impact of the coaches’ communication styles on athlete satisfaction, Bump (1986) focused on the psychological skills of coaches rather than the more frequently studied psychological skills of athletes. The purpose of her research was to study the interrelationship of empathy in coaches with the social support, satisfaction and performance of the female athletes. Bump found that coaches with higher accurate empathy displayed significantly better communication ability than coaches who exhibited
lower amounts of empathy. Furthermore, athlete satisfaction was positively correlated with perceptions of empathy displayed by the coach while social support provided by the coach and others was positively associated with the athletes’ satisfaction, their participation, and performance (Bump).

According to Bump (1986), creating and maintaining accurate empathy reflects the ability to effectively communicate. Communication between the coach and athlete is a basic idea, yet facilitating effective communication and subsequently creating a positive connection as qualified by mutual understanding and respect between two people can be a complicated process. Belenky, Clinchy, Goldberger, and Tarule (1986) believe that women often construct and gain knowledge through “connected knowing” unlike “separate knowing” where the sharing of knowledge and information is contextual and experiential, not objective and analytical. A coach’s rejection of an athlete’s attempt to connect as defined by the RCT (Jordan, 1994, 1997b; Jordan et al., 1991; Miller & Stiver, 1997) likely results in self-blame, lowered self-esteem, behavioral and psychological disengagement, all of which may increase levels of stress and subsequently diminish athlete satisfaction and even performance (Scanlon et al., 1991; Lazarus, 2000). Therefore, it is important for coaches and members of the athletic community to understand the significance of maintaining positive connections with their student athletes as well as the importance of facilitating team cohesion among team members.

Facilitation of positive connections within a team serves many purposes. A positive connection between two people may have an impact on individual members’ psychological health and well-being. According to the tenets of the transactional model
of stress and coping (CMRT), psychologically healthy individuals may develop a less threatening stress appraisal when faced with a stressful encounter. Positive emotion influences the stress appraisal, which in turn is likely to contribute to an athlete’s improved ability to utilize adaptive or engagement coping strategies (Folkman & Lazarus, 1985, 1986, 1988; Folkman, Lazarus, Dunkel-Schetter, Delongis, & Gruen, 1986). This cyclical process perpetuates a positive paradigm for future appraisals. Optimistic athletes are more likely to feel in control (Anshel et al., 2001) and respond to a potentially stress provoking event by adopting a “challenge” paradigm (Lazarus, 1999), in which the athlete faces the situation with proactive measures to resolve the potential stress. As a result of working through the situation, the athlete is likely to achieve a greater sense of self-efficacy and confidence. Subsequently, the athlete may experience more satisfaction in her athletic participation (Anshel et al., 2001; Jowett, 2003).

In summary, connection in relationships serves as a protective factor against distress (Belle, 1982). Relationships with coaches, teammates or members in the athletic community are connected to the psychological health in female college athletes (Jordan et al., 1991). Connection in relationships also has the potential to impact the stress and coping process in a positive, cyclical manner. According to researchers, relationships have an important influence on outcomes in sport including athlete satisfaction and ability to cope with new challenges (e.g., Giacobbi et al., 2004; Petrie & Stoever, 1997; Rosenfeld et al., 1989; Tracey & Corlett, 1995; Weiss & Friedrichs, 1986; Westre & Weiss, 1991). According to Lazarus (2000), emotions, which occur throughout the stress and coping process, have the potential to influence athletic performance or outcome
behaviors in sport. However, the precise nature of the stress and coping process, how relationships impact the stress and coping process, and the mediating effects of relational health on the relationship between perceived stress (i.e., stress appraisal) and athlete satisfaction are unclear. Furthermore, the influence of gender on the stress and coping process is also unclear despite consistency among sport psychology scholars that women employ more emotion focused strategies and utilize social support as a coping strategy more than men (Crocker & Graham, 1995; Madden et al., 1989; Scanlon et al., 1991). Many studies on the stress and coping process in sport psychology literature utilized a transactional theory of stress and coping but most did not employ a feminist perspective when studying differences between genders, which cause concern regarding the applicability of sport psychology research to all participants.

Statement of the Problem

The unique way in which women experience psychological growth and wellness must be considered as part of the theoretical foundation for sport psychology research and practice with female college athletes. Within a male dominated athletic culture, the potential for chronic disconnection, depression, increased levels of stress, and ineffective coping among female athletes is profound and may likely lead to unsatisfactory experiences in sport. Female athletes need to feel their coach has an invested interest in them as an athlete and that the coach shares a mutual understanding of their needs, goals and desires (Jowett, 2003; Tuffey, 1995). It is important for female athletes to share a positive and connected relationship with their coach as well as experience a feeling of belonging to the team (Jowett, 2003). However, female athletes generally feel their
coaches do not understand this need for connection (Balague, 1999; Tuffey, 1995). The desire for connection, according to the RCT, is inclusive of all groups of college women, including female college athletes.

A recent report distributed by the director of the college counseling center to staff and faculty at the University of Florida reflected that among college women, relationship problems were a major cause of stress and the primary reason why they sought counseling (Resnick, 2003). According to this report, 1,460 students attending the University of Florida sought counseling during the year 2002-2003. The top five presenting problems were relationship issues for both men and women, which accounted for 48% of the visits; followed by stress and anxiety, 37%; and depression, 29% (Resnick, 2003). The findings of this report reflect a nationwide trend of college students seeking services through campus mental health care centers more frequently and with more severe psychological symptoms (Benton, Robertson, Tseng, Newton, & Benton, 2003; Gallagher, Gill & Sysco, 2000; Pledge, Lapan, Heppner, Kivlighan, & Roehlke, 1998; Robbins, May, & Corrazini, 1985).

Gallagher et al., (2000) conducted a national survey to investigate the nature of counseling services sought by college students. Seventy-seven percent of counseling center directors reported an increase in the number of students with severe psychological problems (Gallagher et al.). Consistent with this report, Benton et al. (2003) found a significant increase in the number of students with more complex problems compared to previous years. The pattern of change indicated a significant increase in common concerns expected in college counseling centers such as developmental, relationship, and
academic difficulties combined with more serious problems like depression, anxiety, and suicidal ideation (Benton et al.; Gallagher). Furthermore, Benton et al. reported that the rates of depression at a Midwestern university of approximately 20,000 college students doubled over the past 13 years from 1988-1989 through 2000-2001. These reports collectively illustrate the potential manifestation of disconnection in relationships across the general student body as well as within minority group populations such as female college athletes.

Mental health professionals consider conflict within interpersonal relationships a source of physical and psychological suffering among the symptoms of depression in college students (Blumberg & Flaherty, 1985; Gotlib & Hammen, 2002; Heiligenstein, Guenther, Hsu, & Herman, 1996; Meilman, Manley, Gaylor, & Turco, 1992). Lack of healthy relationships may also lead to experiences of chronic disconnection, called impasse (Miller, 1988), which has negative psychological consequences including depression, substance abuse and even violence (Bergman & Surrey, 1994). Thus, a cyclical pattern involving depression and disconnection may perpetuate negative experiences for college women and female college athletes. According to Jordan (1997a), healthy relationships are central to women’s psychological wellness, and women who do not possess positive connections with others experience a profound negative impact on their sense of self-worth and ideas of belonging, which can lead to self-destructive behavior and emotional suffering. Individuals who experience chronic disconnection, depression, and stress or anxiety are likely dissatisfied with life experiences. By contrast, people who have high quality relationships are four times as
likely to feel good about their self-concept, and these relationships explain as much as
70% of personal happiness (Magen, Birenbaum, & Pery, 1996).

Common stressors of college life include academic and financial responsibilities,
changes in social groups, development of personal boundaries, family issues, and anxiety
regarding the transition from home or to life after college (Arce, 2004). In addition to
these types of stressors, female college students are at greater risk for experiencing stress
due to higher rates of sexual and physical assault, pregnancy, and the loss of power in
relationships resulting from gender-role socialization (McGrath, Keita, Strickland &
Russo, 1990; National Institute of Mental Health [NIMH], 2000; Nolen-Hoeksema,
2002). Student-athletes arguably face even greater demands, as they too are vulnerable
to these events but also endure the constraints placed upon them by the athletic
corporation. Female college athletes want to please their coaches, teammates, and
members of the athletic community and are keenly aware of performance standards
required to keep athletic scholarships and win championships. Female college athletes
also must comply with additional standards set by the NCAA and the conference or
regional governing body. Additionally, the athletic and campus culture is not always
sensitive to the needs of female college athletes as a unique and minority population.

According to the theoretical tenets of the RCT, female college athletes depend on
connected relationships with the university professors, faculty, and staff as well as
coaches, teammates, and all members of the athletic community as a source of personal
growth and wellness. Within the context of athletics, stressful situations can contribute
to the failure of female athletes to fully utilize their skills and athletic potential resulting
in performance deficits (Lazarus, 2000). Excessive stress and disconnection may also lead to depression, isolation, or even self-destructive behavior. The psychological health of female athletes is a topic of concern to the athletes, members of the athletic community, mental health professionals, and sport psychologists on the college campus. In response to this concern, sport psychology literature reflects a recent effort to study the unique experiences of female athletes (Gill, 2001). However, a strong consensus among sport psychology scholars is that more research is warranted to further examine the influence of gender and multicultural experiences on athlete satisfaction and well-being of female athletes.

**Need for the Study**

Sport psychology research indicates that men and women handle stress differently, and that women cope using strategies that may have less value to coaches and the athletic culture (Anshel et al., 2001; Crocker & Graham, 1995). However few, if any, sport psychology studies examined the subjective experiences of female athletes using the theoretical framework of the Relational Cultural Theory (RCT). Specifically, the role of healthy, supportive relationships with teammates, coaches and the community and their potential to serve as mediator of the relationship between stress and athlete satisfaction for female student-athletes lacks attention in sport psychology literature despite the vast amount of research on the stress and coping process in athletic settings.

Female athletes revealed their frustrations resulting from their perception that the athletic culture does not understand their individual goals, needs, or the impact of stress and anxiety on their personal and athletic life (Bump, 1986). Therefore, it is important to
examine how relationships are related to stress, emotion, and the coping process with the primary goal of enhancing psychological health for female college athletes. One method is to add a theoretical layer to the stress and coping framework and examine the stress and coping process in female athletes with a model of psychological health. The RCT was recently developed to more accurately describe the psychological development and needs of women. Within this framework, researchers and practitioners may enhance their understanding of subcultures within the athletic community to facilitate a highly satisfactory and productive athletic experience for female college athletes. More specifically, understanding the relational needs of female athletes requires a more thorough exploration of how relationships are established, developed, nurtured and maintained with the hope of understanding how to facilitate female athletes’ efforts to achieve a satisfying experience both personally and athletically.

Prior to a recent trend of sport psychology research and practice, researchers primarily utilized psychological models that lacked an emphasis on the unique experiences of women and issues related to diversity in the assessment and intervention of personal and performance deficits (Gill, 2001; Hall, 2001). Ideas about competition, motivational techniques, and methods of discipline were tested predominately by male researchers with male participants (Tuffey, 1995) and based on a traditional model of psychological development. According to relational theorists, traditional models of psychological development do not fit women’s experiences (Gilligan, 1982; Jordan et al., 1991; Miller & Stiver, 1997). Gilligan (1982) and Jordan (1997c, 2002, 2003) contend that the current theories provide a false reality for women through the limitations in the
conception of the human condition and the bias in clinical-developmental theory (Gilligan, 1982; Jordan, 1997c, 2002, 2003). According to Jordan (1997c, 2002, 2003), developmental theories reflect an old tradition in which the differences between the dominant and nondominant subjects are viewed as deficient or defective in a hierarchical culture. In terms of athletics, by the time women became heavily involved in sports, previous models of coaching and relating to athletes were well established and few questioned the generalizability of traditional psychological models of development when working with or studying female athletes (DeBoer, 1995; Fasting, 1994).

**Purpose of the Study**

The purpose of this study was to expand on what researchers and practitioners know about college women’s relationships with their coaches, teammates, and members in the athletic community and further examine the link between these relationships and self-reported satisfaction in sport. Another purpose of this study was to address the link between female college athletes’ relationships with members in the athletic community and perceived stress and coping style. The third purpose of this study was to examine perceived stress and coping style (i.e., engagement and disengagement coping) as they relate to athlete satisfaction. The fourth purpose of this study was to examine relational health as a potential mediator of the relationship between perceived stress and athlete satisfaction among female college athletes. In general, the purpose of this study was to expand on what researchers know about the ways in which relationships with members of the athletic community, teammates, and head coaches relate to psychological health and behavior outcomes in sport on both a team and individual level.
Few studies have examined the stress and coping process through the lens of a relational model centered on women’s experiences. Furthermore, researchers to date have not utilized or integrated theories such as the RCT and CMRT to further examine the stress and coping process as it pertains to female college athletes in competitive sport. To expand on this body of sport psychology research among female athletes, this study utilized a gender-sensitive theoretical and methodological approach. A relational theoretical framework such as the RCT can speak to the unique ways that women form and nurture relationships as the core of their identity. The CMRT is also an ideal theoretical framework to examine relational health as it more specifically relates to appraising stress as an influential factor in the coping response and on the overall satisfaction in female athletes.

**Rationale for the Approach**

The rationale for this study developed in light of the need to include a feminist perspective in examining the impact of relational health on stress and coping processes and athlete satisfaction among female college athletes. In this study two theoretical frameworks were integrated to expand the existing body of research pertaining to the athletic experiences of female college athletes. The RCT nicely complements and is easily integrated with the CMRT in many ways. The authors of the RCT and CMRT strived to include differences among cultures and subcultures of humans as well as their experiences as a rich source for growth, expansion of possibilities and ways of adapting to the world. Most importantly, the RCT and CMRT share a relational perspective. The CMRT embraces the idea that stress and coping is characterized as a bidirectional and dynamic process that redefines how individuals cognitively appraise their experiences.
These appraisals impact how individuals cope, relate, and adapt to their current life situations (Lazarus).

One illustration of the CMRT is how the appraisals and reappraisals of a stressful encounter are closely tied to “relational meaning.” A female college student athlete’s worldview, feelings of connectedness to others in the environment, and her general sense of self can greatly influence how she perceives a stressful encounter. Relational meaning also greatly influences the appraisal, reappraisal, and coping strategies in response to a potentially stress evoking event. Similarly, the RCT emphasizes the importance of connectedness as defined by an interaction between two people that is mutually empathic and empowering (Miller & Stiver, 1997), as a central component to one’s psychological functioning and positive self-identity. The philosophical underpinnings of both theories and how these theories are easily integrated to supplement the existing body of sport psychology research and literature are explored in more detail in Chapter 2.

**Research Questions**

The following research questions were addressed in this study:

- Among female college athletes, what is the nature of the relationship between relational health and athlete satisfaction as revealed in the athlete’s relationships with the athletic community, teammates and head coach?

- Among female college athletes, what is the nature of the relationship between perceived stress (i.e., stress appraisal) and relational health as revealed in the athlete’s relationships with athletic community, teammates and head coach?

- Among female college athletes, what is the nature of the relationship between relational health and an athlete’s coping style as revealed in the athlete’s relationships with the athletic community, teammates and head coach?

- What is the nature of the relationship between coping style and athlete satisfaction among female college athletes?
• What is the nature of the relationship between perceived stress and athlete satisfaction among female college athletes?

• Does relational health mediate the relationship between perceived stress and athlete satisfaction among female college athletes?

Definition of Terms

Throughout this study, several terms with similar meanings were used to describe a theory or theoretical construct. Therefore, the following operational definitions are provided to clarify the meaning of each term commonly referenced within the context of the RCT and CMRT, and the parameters of this study.

Appraisal. An appraisal is a cognitive evaluation and interpretation of an event as challenging, threatening, harmful or beneficial.

Athlete satisfaction. Athlete satisfaction is “a positive affective state resulting from a complex evaluation of the structures, processes, and outcomes associated with the athletic experience” (Chelladurai & Riemer, 1997, p. 135). Athlete satisfaction represented the extent to which an athlete’s expectations were met across 15 different aspects of satisfaction relating to personal, social, and performance standards.

Connection. A connection is “the active participation in the development of other people” (Miller, 1976) or “an interaction between two or more people that is mutually empathic and mutually empowering” (Miller & Stiver, 1997, p. 26).

Coping. Coping is “constantly changing cognitive and behavioral efforts to manage specific internal and/or external demands that are appraised as exceeding the resources of the person” (Lazarus & Folkman, 1984, p. 141).

Coping strategy. Coping strategy is a way of coping that is often categorized into a higher order factor or theme. For example, active planning is one way of coping often categorized under the higher order category of “engagement.”
Coping style. In this study, coping style (a higher order category of coping) refers to both engagement coping and disengagement coping.

Disconnection. Disconnection refers to inevitable exchanges in relationships that mitigate mutual empathy and mutual empowerment; a source of psychological suffering (Miller & Stiver, 1997).

Disengagement coping. Disengagement coping encompasses thoughts and behaviors that focus attention away from the stressful event and include strategies such as ignoring the task, focusing negatively on self rather than on the task, self-criticism, and blame (Haney & Long, 1995; Tobin, Holroyd, Reynolds & Wigal, 1989).

Engagement coping. Engagement coping encompasses “active efforts to manage both problem-focused and emotion-focused aspects of the stressful event” (Haney & Long, 1995, p. 1727), characterized by attempts to manage the stressful person-environment relationship (i.e., the source of stress). Emotion-focused behaviors are attempts to distract oneself from the stress provoking relationship (Lazarus, 1999; Lazarus & Folkman, 1984).

Feminist perspective. Feminist perspective refers to an inclusive, action-oriented approach to end sexism, sexist exploitation, and oppression (Hooks, 2000). It is a perspective in which gender is viewed as a relational construct rather than a categorical construct and is connected to race, ethnicity, class, and other social identities. “Gender and cultural relations involve power and privilege” (Gill, 2001, p. 363).

Growth-fostering relationships. Growth-fostering relationships promote zest in the form of vitality and energy, increase ability for and an inclination toward action, offer clarity of sense of self and others, give greater sense of self-worth, and an increased sense of motivation to seek connection in relationships with others (Miller, 1986).
**Impasse.** Impasse is defined as an experience of chronic disconnection, referred to by the feminist scholars who created the RCT as an experience of less connection, isolation, and diminished capacity to act effectively in a relationship (Miller & Stiver, 1997). When impasse persists, negative psychological consequences such as depression, substance abuse, and even violence emerge (Bergman & Surrey, 1994).

**Mentor [coach].** A mentor is a relationship that is essential to psychological growth and development beyond a professional transaction (Liang, Tracy, Taylor, Williams, et al., 2002). A mentor is “an adult who is often older than you, has more experience than you, and is willing to listen, share her or his own experience, and guide you through some part or area of your life” (p. 28).

**Mutual empathy.** Mutual empathy is a shared experience between two or more people based on authentic thoughts and feelings, resulting in a bidirectional and dynamic process that functions as a central component of psychological growth (Miller & Stiver, 1997).

**Mutual engagement.** A mutual engagement is the perceived commitment and mutual involvement or attunement to a relationship (Liang, Tracy, Taylor, Williams, et al., 2002).

**Mutuality.** Mutuality is a shared experience where all members are actively engaged; it is a form of relating characterized by genuine participation where all members give their full amount of energy; it is not the same as equality or reciprocity (Miller & Stiver, 1997).

**Peer [teammate].** A peer is “someone whom you feel attached to through respect, affection, and/or common interests, someone you can depend on for support and who depends on you (Liang, Tracy, Taylor, Williams, et al., 2002, p. 28).”
**Relational health.** Rational health refers to growth-fostering relationships where an individual experiences personal growth and development through relationships. The goal is not for the individual to mature through separation, rather the individual matures as a result of being in intimate relationships with others.

**Social support.** Social support is a behavior that illustrates an attempt to empower or validate another person’s emotional, psychological, or technical experience. Social support may come in several forms and shares the qualities of connected or mutual relationships with more than one person.

**Stress.** Stress is the extent to which the demands (or one’s perception) of an event, situation, or relationship between the person and the environment exceed one’s personal resources (Lazarus, 1999).

**Stress appraisal.** Stress appraisal refers to an individual’s cognitive evaluation of stress. Stress appraisal is used synonymously with perceived stress for the purpose of this study.
CHAPTER 2
LITERATURE REVIEW

Introduction

The purpose of this study was to determine the relationship among relational health, the stress and coping process, and athlete satisfaction in female college athletes. The literature review is organized into three major sections: (a) relational cultural theory (RCT) as a model for female athletes, (b) a transactional theory of stress and coping called the cognitive-motivational-relational theory of emotion (CMRT), and (c) the rationale for a theoretical synthesis of the RCT and the CMRT. The first and second sections include theoretical and empirical evidence that supports an association between relational health and satisfaction, and relational health and the stress and coping process among female college athletes. A summary of the research is found in the final section of the chapter following the hypotheses and research questions specific to this study.

The Relational Cultural Theory: A Model for Female Athletes

Relational theorists at the Stone Center, Wellesley College developed the relational cultural theory (RCT) to better represent female psychological health and development compared to more traditional views of developmental psychology. The authors of the RCT defined the unique way in which women experience psychological growth through psychological connection and mutual engagement with others rather than creating a separate sense of self through disconnection from early childhood relationships (Surrey, 1985). One of the founders of the RCT wrote, “rather than a primary
perspective based on the formed and contained self, this model stresses the importance of
the intersubjective, relationally emergent nature of the human experience” (Jordan,
1997c, p. 15). The consensus among relational theorists is that growth occurs through
mutually empathic relationships (Jordan & Hartling, 2002), and mutual empathy between
two or more people is the foundation for healthy, growth-enhancing connections (Surrey,
1991). Mutuality within relationships is not the same as equality (Miller & Stiver, 1997);
rather it means that there is a sense of “openness to change and growth,” of being
“responsive” to the other person, and of “emotional availability” (Jordan, 1997a).
Human beings have a “fundamental human motivation” for daily positive interactions
with others (Baumeister & Leary, 1995, p. 497). A key element to women’s
psychological health identity development is a growth-fostering connection between two
or more people, which occurs through authentic relationships (Jordan, 1997c; Jordan et
al., 1991, Townsend & McWhirter, 2005). By contrast, lack of mutual engagement,
inauthentic engagements, and lack of empowerment and zest represent “disconnection”
in a relationship, and disconnections are the source of psychological problems (Jordan et
al., 1991; Jordan, 1997b; Miller & Stiver, 1997).

Baumeister and Leary (1995) found that the human experience of disconnection
from others resulted in social isolation and lack of belonging and meaning or purpose in
life. Disconnection between and among people is pervasive in cultures that operate
within a hierarchical system that interprets differences as deficits (Baumeister & Leary,
see themselves as cut off from the social world ” (Townsend & McWhirter, 2005) and
harmful forces such as racism, sexism, heterosexism, classism, and ageism become
obstacles to creating connection with others, which according to Jordan (1997c) and
other relational theorists (Gilligan, 1982, Miller, 1986; Miller & Stiver, 1997; Surrey, 1985), is necessary for healthy psychological development and wellness. Feminist researchers, scholars, and mental health practitioners have recently made a concerted effort to focus on themes of race, culture, power, and gender in theory, research, and practice with women generally and female athletes specifically (Bredemeier, 2001; Gill, 2001; Hall, 2001; Krane, 2001; Oglesby, 2001; Roper, 2001). Recent studies substantiating the applicability of the RCT to women across different ethnic, cultural and socioeconomic backgrounds makes the RCT an ideal framework to utilize in the athletic setting with female college athletes.

**A Feminist Perspective**

Unlike the relational perspective of psychological development, traditional psychological developmental theories suggest that autonomy and intimacy occur as a result of separation from parental influence and lack of dependence on others (Nelson, 1996). Eurocentric developmental models of psychological health view non-Western cultures and women in minority groups as “less psychologically healthy” (Christopher, 1999, p. 144). Alternatively, the RCT proposes connection, community, cooperation, and collaboration as precursors to positive growth (Coy & Kovacs-Long, 2005; Miller, 1986; Tannen, 1990). Furthermore, societal pressures to individuate devalue affiliation with others as the first psychological human need second only to the physical needs of survival and security (Coy & Kovacs-Long, 2005; Maslow, 1970; Miller, 1986).

Relational theorists recognize that a female’s sense of self is tied to her ability to connect with others (Gilligan, 1982, 1993; Jordan, 1994, 1997a, 1997b, 1997c; Jordan et al., 1991; Liang, Tracy, Taylor, & Williams, 2002; Miller, 1986; Miller & Stiver, 1997; Surrey, 1985; Turner, 1987; 1997). Originally called “self-in-relation” (Surrey, 1985),
and later “The Relational Model,” relational theorists, inspired by the ideas from Jean Baker Miller’s (1986) book, *Toward A New Psychology of Women*, modified the theory over the past two decades to respond to issues of diversity in the theoretical and clinical applications to women. A valuable function of the RCT is facilitating empathy across differences as a source of growth and expansion, which serves as one of the most “compelling paths to personal and relational growth” (Jordan, 1997c, p. 3).

The concern that traditional models of developmental psychology may overlook the implications of broader cultural, historical and socio-political experiences on women’s psychological health and development is evident throughout the literature. Scholars in the sport psychology discipline contend that additional research is warranted to further examine the experiences of female athletes (Bredemeier, 2001; Gill, 2001; Oglesby, 2001; Roper, 2001; Semerjian & Waldron, 2001; Whaley, 2001), specifically athletes of minority cultures (Hall, 2001) and sexual orientation (Krane, 2001). Duda (1991) expressed concern that reviews of contemporary sport psychology literature contributed little to our understanding of gender differences in regard to behavioral patterns and psychological processes, and Fasting (1994) found that the majority culture inaccurately explained or ignored female athletes’ personality constructs. The authors of the RCT specifically called attention to the unique process of psychological development for women across cultures and the role of connection in women’s individual growth, identity development, and psychological health. Women do not just value relationships; rather, relationships serve as an opportunity for women to form connections with others and through which women experience relational movement (Jordan, 1997c).

Relational theorists describe relational movement as a process of mutual exchanges whereby empowering and growth-facilitating transactions occur (Jordan,
Women develop a sense of relational competence from establishing and maintaining these growth-fostering relationships as evidenced by “movement toward mutuality, developing anticipatory empathy, being open to being influenced, experiencing vulnerability as an inevitable place of potential growth rather than danger, [and] creating good connections rather than exercising power over others as the path of growth” (Jordan, 1994, p. 3). A sense of relational confidence also grows out of connection in relationships. “A person’s sense of worth or confidence ideally is not just feeling good about oneself but also involves a sense one has to contribute to others and that one is part of a meaningful relationship” (Jordan, 1992, p. 5). The significant role that meaningful relationships occupy for female athletes in terms of satisfaction in their athletic experience and perceptions of success is also evident among sport psychology research, particularly with regard to the coach-athlete relationship (Bump, 1986; Giacobbi et al., 2004; Jowett, 2003; Nakamura, 1996; Tuffey, 1995). The findings from these studies further support the RCT as an ideal framework to study psychological health.

Relationships with the coach and other forms of social support were found to have a profound impact on one or more aspects of the athletic experience, including wellness, satisfaction, stress and coping, and even performance (Crocker & Graham, 1995; Giacobbi et al., 2004; Gould et al., 1993; Jowett, 2003; Lazarus, 2000; Park; 2000; Scanlan et al., 1991). Social support is consistently associated with the athletic experience and several studies imply that intimate relationships foster a more successful and satisfactory athletic experience (Bredemeier, 2001; Bump, 1986; Giacobbi et al., 2004; Jowett, 2003; Tuffey, 1995). Newcomb (1990) found that interpersonal connectedness involves different types of social support including bonding, attachment,
friendship, and intimacy among female college athletes. In a study on the athlete-coach relationship, Jowett (2003) found that reciprocal behaviors and helping transactions accounted for approximately 44% and 6% percent of the data, respectively; and social support was included under a second-order theme entitled “helping transactions.”

Jowett (2003) found that athletes’ sport-related behavior was associated with the nature of the coach-athlete relationship. Specifically, Jowett (2003) highlighted the “give and take” principal within the coach-athlete relationship based on the way in which both the athlete and the coach demonstrated the need for a mutually empowering experience in order to train or coach (p. 453). Several studies in which researchers examined the coaches’ influence over an athlete’s development of self-esteem and level of satisfaction in performing her sport (Barnett et al., 1992; Johnson, 1999) support these findings. Furthermore, these findings are consistent with the key constructs of the RCT. Self-esteem, confidence, authentic interpersonal relationships, and an overall sense of wellness are some examples of the biproducts of growth-fostering relationships as described by Miller (1986).

Five essential qualities characterize growth-fostering relationships (Miller, 1986; Miller & Stiver, 1997). They include increased zest or vitality; increased ability to take action or empowerment; increased clarity of one’s self, others, and shared relationships; increased sense of self worth; and a desire for relationships to grow in quality and in meaning. The founders of the RCT highlighted the concept of connection as the identified construct of relational health. Further support of these constructs was found in a recent study on 5,299 adults. Park, Peterson and Seligman (2004) found that hope, zest, gratitude, love and curiosity were “consistently and robustly” associated with life satisfaction (p. 603), and mirror Miller’s (1986) definition of a growth-fostering
relationship and relational health (Jordan et al., 1991). According to Jowett (2003), successful relationships in the athletic environment similarly reflect positive interpersonal qualities such as trust, respect, commitment, and understanding.

An analysis of the coach-athlete relationship (Jowett, 2003) revealed that interpersonal constructs fell under three separate themes referred to as “Closeness, Coorientation, and Complementarity, or the three C’s (3 Cs), which reflect coaches’ and athletes’ emotions, cognitions, and behaviors” (p. 444). The meaning of the 3 C’s (Jowett, 2003) closely resembles the core constructs of relational health in women (RCT), such as intimacy (closeness), engagement or initiative in creating authentic relationships (coorientation) and relational movement (complementarity). Engagement is defined by perceived mutual involvement, commitment, and attunement to the relationship (Liang, Tracy, Taylor, Williams, et al., 2002). Authenticity describes feeling free to be genuine in the context of the relationship while acquiring knowledge of self and others (Liang, Tracy, Taylor, Williams, et al.). Other constructs of the RCT include empowerment and zest, the feeling of being personally strengthened, encouraged, and inspired to take action in one’s life (Liang, Tracy, Taylor, Williams, et al.). Mutual engagement, authenticity, and empowerment/zest, in theory, increase the amount of connectedness within a relationship and subsequently create a desire to achieve connection in all relationships. By contrast, disconnection in relationships occurs when these qualities are lacking in a relationship (Miller & Stiver, 1997).

Miller and Stiver (1997) described the term disconnection as “an encounter that works against mutual empathy and mutual empowerment” (p. 26). According to Miller and Stiver, minor ruptures within a relationship are an inevitable experience of being in relationships with others. Temporary disconnection can lead to a strengthened
relation and increased sense of relational competence if the less powerful person in
the relationship is able to express her feelings and the other person responds in an
empathic manner. However, chronic disconnection may occur in a situation where the
less powerful person feels dismissed, ignored, or rejected. Therefore, relational theorists
(Jordan et al., 1991; Miller & Stiver) view more serious violations of the relationship
over time as the source of psychological suffering. Disconnection that is negative and
chronic in nature is called impasse, which is characterized by isolation and diminished
capacity to act effectively in a relationship (Stiver, 1997). When impasse persists,
negative psychological consequences include depression, substance abuse and even
violence (Bergman & Surrey, 1994).

Chronic disconnection and specifically impasse diminish one’s feelings of
relational competence and self-confidence (Miller, 1988). Consequently, the less
powerful or injured person may utilize coping strategies referred to as “strategies of
disconnection or survival” in order to fit into or stay in the relationship (Gilligan, 1982;
Gilligan, Lyons, & Hammer, 1990; Miller & Stiver, 1997; Stiver, 1997; Townsend &
McWhirter, 2005). Such responses foster inauthentic relationships and techniques to
remain disconnected, thus ultimately perpetuating the cycle of disconnection. As a
result, the natural yearning for connection becomes a feared desire that increases one’s
vulnerability and diminishes her zest, feelings of empowerment, clarity of self, and sense
of worth. This concept is referred to as the “central relational paradox” (Miller & Stiver,
1997, p. 2). According to the authors of the RCT, women who find themselves in the
central relational paradox are more likely to feel depressed, anxious, and generally
dissatisfied with life experiences. Chronic disconnection is a dangerous path in any
relationship, as it can thwart healthy psychological development and personal growth (Jordan et al., 1991).

Disconnection in relationships is also a relevant concept to female college athletes. Krane (2001) discussed the struggle regarding athletes’ awareness of how they are perceived and the importance of appearing heterosexual and feminine, which may influence their decision to participate in sport and what sport they choose. This is an example of the central relational paradox (Miller & Stiver, 1997), in which a female athlete may hide certain personal qualities in order to maintain her relationships (Gilligan, 1982). Krane stated that the consequences of having a sexual orientation different than the predominate group include “negative treatment by administrators and coaches, verbal harassment by fans, lack of media attention and endorsements, sexist and heterosexist prejudice, and even negative bias by officials or judges during competition” (p. 118). The impact of disconnection with others, including fans (community), mentors (coaches and judges), and peers (teammates) is profound. According to Miller and Stiver, this type of disconnection results in psychological suffering. A decrease in self-efficacy and esteem and an increase in negative emotions and feelings of depression (Arce, 2004, Belle, 1982) stem from compromised relational health with others. According to Lazarus (2000), negative emotions also curb athletic performance.

The results of several studies support the idea that the most important interpersonal relationship in the context of sport is most likely between the coach and the athlete (Bump, 1986; Jowett, 2003; Tuffey, 1995). Jowett’s (2003) analysis noted the differences between coaches’ and athletes’ perceptions about their relationship. The athletes and coaches did not share the same perspectives on three specific areas of their relationship: emotional isolation, disagreements and incompatibility. The results
revealed varied levels of disconnection in their relationship. The findings from this study further support the idea that chronic disconnection in the coach-athlete relationship may lead to an increase in perceived stress and dissatisfaction with the athletic experience. Furthermore, lack of social support or the wrong kind of support (i.e., lack of a quality relationship) was found to be a source of stress for female college athletes (Giacobbi et al., 2004; Scanlon et al., 1991).

Scanlon and colleagues (1991) conducted a qualitative study with 26 former national championship figure skaters and, after an inductive analysis, determined five major sources of stress from the athletes’ perspective. Negative significant-other relationships, defined as “having difficult and unpleasant interactions with peer and adult significant others” (p. 112) ranked second only to negative aspects of competition and above costs of skating, personal struggles and traumatic experiences (Scanlon et al., 1991). Interpersonal conflict was defined as “experiencing discord between oneself and significant others,” including parents, coaches and skating peers (Scanlon et al., p. 113). Athletes gave several examples of interpersonal conflict, such as poor communication with their partner, not feeling like part of the group and opposing views among significant others, which influenced their athletic experience in terms of both satisfaction and performance.

Creating and maintaining a connected relationship between the athlete and coach may have a profoundly positive impact on female college athletes’ psychological health and development in sport. Balague (1999), Bump (1986) and Tuffey (1995) brought awareness to the significance of a connected coach-athlete relationship as well as the athletes’ need to experience a sense of belonging to their team. The research supported the notion that female athletes generally feel that their coaches do not understand this
need for connection (Balague; Bump; Tuffey). Therefore, the RCT is an exemplary model for sport practitioners to utilize in their quest to better understand female college athletes’ relationships with others in the athletic community and the subsequent impact on the stress and coping process and athlete satisfaction.

**Traditional and Relational Models of Psychological Development**

Relational theorists assert that there has been a disparity between women’s experiences and the representation of human development (Gilligan, 1982, 1993, 1994; Jordan et al., 1991; Jordan, 1997c, 1999, 2003; Miller, 1984, 1986, 1988, 1994). According to Gilligan, traditional models of development persistently and systematically misrepresented women, their psychological growth, and motives. Heilbrun (1979) and Gilligan agreed that the notion of “self,” as described by human development theorists, did not fit women’s experiences (Miller, 1984). Feminist scholars (Belenky et al., 1986; Berger, 1994; Bredemeier, 2001; Chodorow, 1978; Eckardt, 1994; Gill, 2001; Gilligan, 1982; Hall, 2001; Hooks, 2000; Jordan et al, 1991; Oglesby, 2001; Roper, 2001; Semerjian & Waldron, 2001) also challenged these traditional models of development for either their theoretical and clinical biases, or their exclusivity of one or more contextual factors such as culture, gender, and socioeconomic status (Miller, 1994). According to Jordan (2001), relational theorists’ rejected the Eurocentric cultural bias that values independence of the self, where the self is “conceptualized in a spatialized way and portrayed as contained by boundaries that protect it from the impinging environment” (Jordan, 2001, p. 94).

Feminist scholars (Berger, 1994; Gilligan, 1982; Jordan, 2001; Jordan et al., 1991) criticize object relation models of psychological development (Bowen, 1978; Freud, 1920, as cited in Sharf, 1996) because these theories suggest that people grow
from dependence to independence where “mature functioning is characterized by the
capacity for logical, abstract thought, autonomous thinking, and separation of thought
from emotion” (Jordan, 2001, p. 94). This definition of maturity is one example of how
the predominance of a male culture defines women’s social and cognitive development.
Erik Erikson’s (1963, 1968) sequential eight-stage theory on psychosocial development
over the lifespan further illustrates how one of the most highly regarded theories of
development can misrepresent people placed in minority groups. According to this
theory, a predetermined psychosocial crisis exists in each of the eight stages of
development, and psychological growth results from successful resolution of the specific
developmental crisis.

In the fifth stage of development (Erikson, 1963), one must resolve the “identity
versus diffusion” crisis and successfully resolve this developmental challenge before
moving on to the sixth stage of development, “intimacy versus isolation.” In stage six, “a
young adult must decide whether or not to fuse identity with another to create a union”
(Evans, Forney, & Guido-DiBrito, 1998, p. 55). According to Erikson, individuals
develop autonomy in early childhood and develop intimacy in young adulthood.
However, a more recent study found that the focus on autonomy of self before intimacy
with others may not be sequential for young women.

Straub and Rodgers (1986) conducted a study with 241 female college students
and found that females scored higher on the mature interpersonal task than on the
autonomy task. Straub (1987) also conducted interviews with women who had high
scores on the autonomy task and found that women attributed their scores to relational
events over all other experiences. In another study, Greeley and Tinsley (1988) collected
data from 441 college students and found that women scored higher on autonomy scores
compared to men, and the authors stated that the intimacy task preceded the autonomy
task for female college students. Consistent with the findings of these studies, Taub and
McEwen (1991) examined patterns of development for white and black undergraduate
females and reported that women tend to develop autonomy through their relationship
with others, not prior to relationships with others as Erikson (1963) suggested. For
women, autonomy and intimacy may not be separate constructs let alone sequential
experiences (Taub, 1995). The results support the idea that psychological growth occurs
through connection with others as a relational being (Gilligan, 1982; Miller, 1976).
Therefore, the empirical evidence from these studies further support the RCT as a
perspective of psychological health for women.

A Feminist Response to Ethnic Diversity

One critique of the self-in-relation model (Miller, 1986) was that the theory was
initially developed by white, upper-middle class, well-educated women and therefore was
not applicable to women across different cultures. As a result, the Women’s Growth in
Diversity (Jordan, 1997c) was published to address misconceptions regarding the
applicability of the RCT across cultures. Subsequent research supported Jordan’s
(1997c) conclusions that the RCT can benefit women across cultures as well as benefit all
persons regardless of gender (García-Coll, Cook-Nobles, & Surrey, 1997; Lee &
focused on her work with black women. Although specifically studying one culture’s
traditions, beliefs, and experiences limits the generalizability of the RCT to all minority
cultures, Turner (1987) stated that there are some common themes in applying the “self-
in-relation” theory (Miller, 1986) to women of color. Some examples include cultivation
of ethnic pride, mutual empathy, and validating the experience of “simultaneously
learning to redefine and differentiate a sense of self in relation to the concern and feeling for significant others” (Turner, 1987, p. 2). Although a black woman’s experience of autonomy and separation may not be valued in traditional ways, “connectedness to family and ethnic identity usually have been a source of love, strength, coping power, and stability which is vital and necessary for psychological survival and health” (Turner, 1987, p. 2).

Within-group cultural and ethnic diversity must be considered among women, as customs and origins influence a woman’s way of knowing and relating to her world (Hall, 2001). Women of the nondominant culture criticize white women for defining feminism with exclusive language. According to bell hooks (1984), “bourgeois white women interested in women’s rights are satisfied with simple definitions of feminism, placing themselves in the same category as oppressed women so as not to call attention to race and class privilege” (p. 18). Hall (2001) emphasized how a “preoccupation with gender minimizes race and cultural differences among women” (p. 386). The pejorative stereotypes and prejudices faced by women athletes of color, such as “Black athletes are not well educated” or “Black athletes have inferior levels of intelligence to their white counterparts,” are more often accepted by the dominant culture and “place African-American women in a double bind” (Hall, 2001, p. 386).

The RCT provides a culturally informed and empathic medium for clinicians and researchers to work with ethnically diverse people. The RCT is a fluid model that embraces cultural uniqueness through mutual sharing, listening, and validating through an active, supportive, educational and systemic process (Turner, 1987). Therefore, the RCT is an ideal framework to utilize when studying female college athletes across various ethnic, socio-political and economic backgrounds. However, the RCT may not
be widely recognized or merited by practitioners due to the small number of quantitative studies that used this framework, especially when the vast amount of empirical documentation is based on traditional models of psychological development established more than a half-century ago.

**A Critique of the RCT**

Despite these advances in theory and practice, relational health is a relatively new concept and has only been recently tested. The Relational Health Indices (RHI), an inventory developed by feminist scholars (Liang, Tracy, Taylor, Williams et al., 2002), was created to empirically test the tenets of the RCT (Jordan et al., 1991; Jordan, 1997c; Miller & Stiver, 1997), and subsequently supported the RCT as a theoretical framework. Despite the novelty of the RHI (Liang, Tracy, Taylor, Williams et al.), at least five studies support the RCT as a model of psychological development and the RHI (Liang, Tracy, Taylor, Williams et al.) as a measurement of relational health.

Walsh (2001) administered the RHI (Liang, Tracy, Taylor, Williams et al., 2002) to examine the impact of relational health on counseling supervisees’ disclosure to their supervisor. The results indicated that the quality of the supervisory relationship was the most significant factor in all categories (Walsh). Peikert (2003) explored the relationship between relational health and career success among female professionals in an organizational work setting. Education and tenure significantly predicted relational empowerment, and age significantly predicted a sense of community among the women. Goldman (2001) examined the relationship between black, Latina, and white female college students’ relational health and disordered eating. The relationship between peer and community relational health and disordered eating had statistical significance. The results from another study (Sutherin, 2002) indicated that lesbians with higher levels of
relational health reported lower levels of internalized homophobia. In a study with a racially diverse sample of college females, Arce (2004) found that participants who reported higher levels of peer, mentor and community health had lower levels of depression. An association between peer health and depression further supported the theoretical premise that relational health is a protective factor against depression. Nevertheless, some feminist scholars find fault in the theoretical premise of the RCT.

The perception that the theoretical tenets of the RCT contradict the spirit of the feminist movement is one specific criticism against the RCT as a model of psychological health for women. Douglas (1995) found that the nature of the self-in-relation theory and its particular construction of gender caused a polarization of male and female that maintains traditional gender stereotypes. According to Douglas, this polarization is more closely related to conventional Western stereotypes because it places women in a subordinate, caretaker role that has been “assigned” due to the suggested “true nature” of women. However, this perspective of relationships represents a “continuum of the old condition of women serving men or serving the patriarchy as opposed to finding full selfhood and liberation through autonomy, independence, and the like” (Jordan et al., 1991, p. 26). Furthermore, the authors of the RCT argued that women advance themselves not through the subservient relationship socially defined by a hierarchical Western culture, but rather through collaborative, growth-facilitating relationships that lead to autonomy and independence.

Knudson-Martin and Mahoney (1999) had a similar concern that the status quo is maintained when theorists oversimplify or over-emphasize gender differences. Rather than over-emphasize differences, relational theorists (Betcher & Pollack, 1993; Coy & Kovacs-Long, 2005; Hancock, 1989; Tannen, 1990) embrace the natural differences
between men and women in a nonhierarchical fashion, in contrast to Western ideology and societal expectations of gendered behavior. If a man’s “rite of passage in Western society is an individuation process expressed through separation, mobility, and competence through competition,” and a woman’s “rite of passage is individuation through connection, commitment, and intimate care in which women develop relationship competence and learn how to establish community,” then the preferred method of problem solving and the individuation process between men and women is different (Betcher & Pollack, 1993; Hancock, 1989; Tannen, 1990 as cited in Coy & Kovacs-Long, 2005, p. 142). According to Coy and Kovacs-Long (2005), women of Western culture experience the process of individuation within the context of intimate relationships, while men experience it outside the context of intimate relationships. Nevertheless, the critics of the RCT were concerned that this theory proposed a reverse hierarchical system, which values the female self and female traits over men (Douglas, 1995). The RCT was perceived as an exclusive theory because it suggested that women develop in relationships and men do not (Douglas). Recent findings suggest otherwise.

Recent studies (Baumeister & Sommer, 1997; Cross & Madson, 1997; Lee, Keough & Sexton, 2002; Lee & Robbins, 2000) suggested that women and men share the motivation to seek social connection with others. However, according to Lee and Robbins (2000), the “sense of connectedness for men” is based on relationships that emphasize forms of social comparison, “which occurs through expressions of competency, power, and status” (p. 484). In contrast, connectedness for women was associated with personal development through growth-fostering relationships with close physical proximity (Lee & Robbins). Women were found to emphasize “reliable alliance” and “opportunity for nurturance” (Lee & Robbins, p. 484). Men, conversely,
emphasized “reassurance of worth but not reliable alliance or opportunity for nurturance” as contributions to social connectedness (Lee & Robbins, p. 484). Thus, the importance of relationships on healthy development is evident for both men and women, but differences were found in the meaning and the role of social connectedness as an element of personal development.

Relational theorists (Gilligan, 1994; Jordan et al., 1991) contend that women and men benefit from social connectedness; however, society has better allowed women to develop sophisticated relational skills. Men have the capacity to develop these skills, but they too are harmed by socialization to value independence and “separateness,” a term defined by more traditional models of psychological development, in lieu of relational health. The term “self” is a Western construction and the authors of the RCT use the term “self-in-relation” to emphasize the idea that people are relational beings. According to relational theorists (Coy & Kovacs-Long, 2005; Gilligan, 1982; Jordan, 1997c, 2002; Miller, 1986) and the authors of the RCT, the culture of Western society is responsible for the gender-polarization and existing hierarchy of independence over interdependence. Therefore, rather than neglecting the context in which strengths occur, the tenets of RCT empower women by validating their relational path toward psychological health.

**The RCT as a Feminist Perspective in Sport**

Several studies that examined gender differences in the context of sport found that the perceived quality of the coach-athlete connection had a significant impact on the personal and athletic experience for female athletes (Bredemeir, 2001; Bump, 1986; Gill, 2001; Oglesby, 2001; Tuffey, 1995). Sport psychology scholars illustrated differences between men and women athletes specifically with regard to their reliance on social
support and the role relationships serve in the stress and coping process (Anshel et al., 2001; Crocker & Graham, 1995; Madden et al., 1989; Ptacek et al., 1992). Relationships play a unique role in how women perceive and cope with stress (Taylor, Cousino Klein, Lewis, & Gruenewald, 2000), and therefore are indirectly tied to athletes’ performances and satisfaction in sport (Giacobbi et al., 2004; Lazarus, 2000).

Giacobbi and colleagues (2004) examined the experiences of female college freshman swimmers at a Division I athletic institution through a combination of group and individual interviews conducted over the course of 6 months (Giacobbi et al.). In this study, sources of stress included interpersonal relationships, specifically relationships with coaches, teammates, and people outside of their athletic environment. The participants mentioned their relationship with their coach as a significant source of stress in at least one of the interviews. Other significant sources of stress included being away from home and missing family and friends, pressure to perform and academic demands. Social support received from teammates and members in the athletic community created a safe place for the freshman participants to cope with stress in the beginning of the year. As the year progressed, this form of coping depended on the quality of relationships formed in the athletic context (Giacobbi et al.). The results from this study are consistent with several studies (Belle, 1982; Jou & Fukada, 1997; VanderVoort, 1999; Weinstein, 2001) in addition to the tenets of the RCT. The quality of women’s relationships and perceived social support has a greater impact on their mental and physical health than the quantity of peer relationships. Social support is consistently among the top coping resources for women athletes throughout the literature.

The general consensus among sport psychology scholars is that women are more likely to seek social support than their male counterpart and that they use more emotional
responses or emotion-focused strategies such as venting in reaction to a stressful encounter (Carver, Scheier & Weintraub, 1989; Crocker & Graham, 1995; Madden et al., 1989; Ptacek et al., 1992, Stone & Neale, 1984). Problem-focused coping is thought to be a more proactive approach as compared to emotion-focused strategies, and the athlete who uses a problem-focused strategy is perceived to have more control over a stressful situation (Anshel et al., 2001). Because of the general perception that problem-focused coping is a more proactive approach to resolving stress, problem-focused coping responses or strategies are reinforced by coaches and are therefore valued by athletes.

Crocker and Graham (1995) stated that women are socialized to use emotion-focused strategies and to seek social support. Men, however, are more socialized to utilize problem-focused coping. For example, Crocker and Graham found that women more than men used coping strategies that included wishful thinking, self-blame, behavioral disengagement, and venting of emotions. Conversely, men utilized strategies such as active-coping, planning, effort, and suppression of competing activities (Crocker & Graham). The Positive Affect and Negative Affect Scale (PANAS; Watson, Clark, & Tellegen, 1988) was administered to the participants to score their affect. The PANAS instrument entailed two scales and assessed positive affect (i.e., “level of pleasurable engagement with the environment”) and negative affect, defined as “general negative valence associated with subjective distress” (Crocker & Graham, p. 328).

The primary analysis of the study (Crocker & Graham, 1995) revealed a significant relationship between problem-focused variables and positive affect. Emotion-focused and social support variables were generally associated with negative affect. According to the results of this study, the coping responses utilized by women reflected negative emotions and feelings of distress, while the men chose coping responses that
reflected a pleasurable engagement with the environment. Due to the perception that “emotional coping” is associated with negative affect, women may find it more difficult to respond to stress in ways that are central to their psychological health. Generalizing these results to female college athletic participants paints an inaccurate picture and perpetuates a negative association to certain coping strategies more typically utilized by female athletes within the coaching culture (Anshel et al., 2001; Crocker & Graham, 1995). According to the authors of the RCT, connection through relationships is a direct path toward personal growth and autonomy. However, the dominant culture perceives the act of utilizing relationships as a coping defense that is emotional and thereby inferior in nature. Thus, the way in which women are perceived to respond to stress is less valued by the culture and may be viewed as an ineffective way to cope.

Another interpretation of this finding may be that the higher order coping categories of problem-focused coping versus emotion-focused coping are not appropriate for female athletes. In general, sport psychology scholars criticized this two-factor categorization as it is “not conceptually clear, mutually exclusive or exhaustive,” as indicated by the fact that most ways of coping can serve both functions and thus could fit into both categories (Skinner, Edge, Altman & Sherwood, 2003, p. 227). Social support seeking is an example of a coping strategy that is focused neither on problem solving or emotion but rather on other people. Carver and colleagues (1989) suggested that while problem-focused strategies are highly correlated and serve to facilitate engagement, some emotion-focused strategies are not correlated, serve different functions, and some facilitate engagement while others do not (Tobin et al., 1989). Relational theorists assert that relational health with others in the form of social support is the preferred method of problem solving and process of individuation for women (Coy & Kovacs-Long, 2005).
Within the context of the hierarchical structure in Western society, researchers may perpetuate the erroneous belief that women are more prone than men to utilize inferior coping strategies. This critique brings attention to the ways in which research methodologies or research measurement instruments reflect the lack of attention to multicultural influences, issues of diversity, gender, sociopolitical contexts and the dynamic and relational nature of the human experience.

A third interpretation of Crocker and Graham’s (1995) findings from a relational paradigm may be that female athletes in general lack a connection with their coach, teammates or community. Disconnection with members in the athletic community may perpetuate the athletes’ perception that she has fewer coping resources available and is powerless over potentially stressful events. Consequently, women may more frequently appraise events as threatening (Lazarus, 1999), partly in response to their perception that they have less power in the relationship with their coaches compared to their male counterparts. In response to the stress appraisal, women may cope by forming inauthentic relationships with themselves and others through behaviors such as wishful thinking, blaming, and through the emotional venting of anger (Gilligan, 1982; Jordan et al., 1991; Miller & Stiver, 1997; Surrey, 1985). Therefore, emotion-coping strategies may represent the reality of the situation for the person experiencing the stress rather than a preferred method of coping. Thus, the stress appraisal and coping response of female college athletes may change depending on whether an athlete perceives a positive connection with members of her intimate athletic environment. However, the exact nature of the stress and coping process among female college athletes is unclear. One way to address the uncertainty surrounding the differences between genders is to utilize the RCT as a feminist framework that represents a psychological model of development centered on women.
Gill (2001) supported a relational rather than categorical perspective of gender and stated that scholarship in sport psychology must include directions that embrace “cultural diversity and relational analysis to move toward feminist practice” (p. 363). A feminist perspective, like the RCT, supports and recognizes the value of relationships among all persons across various dimensions of diversity including race and ethnicity, sexual orientation, socioeconomic status and gender (Oglesby, 2001). Consistent with the efforts of feminist sport psychologists, the RCT provides theorists, practitioners and researchers with a relational model that represents and includes differences among individuals under the premise that relational health benefits all people. More specifically, Bredemeier (2001) asserted that using feminist praxis, defined as the reflection and action on behalf of feminists to transform the power “differentials based on social structures that deny or diminish the full humanity of people” (p. 412) is one way for sport psychology research to reach the goal of better understanding women’s experiences in sport.

Bredemeier (2001) found that the common theme among the women’s experiences involved the discounting of the way women derive information or through which women “come to know,” because they do not “map onto the pattern typically affirmed by men” (p. 414). Feminist scholars emphasize the need to supplement existing paradigms for research with a relational perspective in order to represent women and the ways in which they come to know and experience their world (Bredemeier; Gilligan, 1982; Jordan et al., 1991), specifically in the athletic domain (Gill, 2001; Hall, 2001; Oglesby, 2001; Roper, 2001; Semerjian & Waldron, 2001). One recommendation for change is for researchers to better understand the lives of the coparticipants or those selected to participate in the study (Strean, 1998). Consequently, researchers may reduce
the negative effects of personal bias by testing their personal ‘truth claims’ and conclusions consensually with them (Bredemeier, p. 417). Women-centered research focuses on empowering women as well as facilitating positive social relations between people (Lenskyi, 1990). Specifically, the researcher’s role should not be limited to describing women’s experiences but also to challenge social injustices women face within the patriarchal sport domain (Roper, 2001).

The RCT, Depression, and the Stress and Coping Process

Depression in Female College Students

Miller (1984) found that connection with others reduces depression, which was recently confirmed by Arce’s (2004) study on the relationship between relational health (RCT) and depression among college women. Depression strikes women twice as often as men (Carr, Gilroy & Sherman, 1996; Kessler et al., 1994; McGrath, Keita, Strickland, & Russo, 1990; Weissman, 1987; Weissman & Olfson, 1995), and the role of relationships, specifically with regard to the quality of women’s relationships as a moderating factor of depression, has been explored. Belle (1982) found that intimate and supportive relationships served as a protective factor against depression and alleviated stress, whereas the absence of connected, positive relationships highly correlated with depression and distress. Findings from several studies further support these results. Lack of mutuality in important relationships was a predictor of depression in women in one study (Genero, Miller, Surrey & Baldwin, 1992), which was later supported by Sperberg and Stabb (1998) who found that lower levels of mutuality and higher levels of suppressed or mismanaged anger in college women were associated with depression. Furthermore, researchers found that women may be more psychologically susceptible to the stressful effects of life events than men (Cronkite & Moos, 1984).
According to Aranda, Castaneda, Pey-Jinan and Sobel (2001), the multiple roles that women generally face lead to a variety of daily stressors contributing to depression (Brown & Harris, 1978). According to Aranda and colleagues (2001), biological and physiological factors offer several explanations for gender differences in levels of depressive symptoms (Kessler et al., 1994; McGrath et al., 1992), variations in stress exposure, vulnerability to stress (Kessler & McLeod, 1984), coping responses utilized, and the role of social support in counterbalancing the effects of stress and depression (Billings & Moos, 1984; Brown & Harris, 1978). If relational health is a protective factor against depression, and depression is a symptom of distress, it is possible that relational health is a protective factor against stress and a link from relational health to the stress and coping process; thus, personal satisfaction can be established.

**Stress and Coping**

Female college athletes in many cases have more roles than noncollege athletes, including their role as a student-athlete, teammate, and perhaps college celebrity or entertainer. However, female college athletes are also vulnerable to depression which manifests through disengaging behaviors such as withdrawal, feelings of helplessness, diminished mutuality and inauthentic relationships with others (Jordan et al., 1991; Miller & Stiver, 1997). Creating and maintaining connected relationships with others is particularly important for female college athletes, as the coach-athlete relationship and perceived social support in general is a critical element of their athletic (Giacobbi et al., 2004; Jowett, 2003) and personal development (RCT). In the athletic context, depression, debilitating levels of anxiety and excessive stress are examples of negative emotions that influence the stress appraisal and coping responses (Crocker, 1992; Jones,
2003; Kim & Duda, 2003; Madden, Summers & Brown, 1990; Ntoumanis & Biddle, 1998; Pensgaard & Duda, 2003). Recent developments and expansions in theoretical approaches that examine the stress and coping process in humans and the psychological constructs of emotion and adaptation (Lazarus & Folkman, 1984; Lazarus, 1999, 2000) have been used in sport psychology research and literature.

For example, one widely cited theory of stress and coping (Crocker & Graham, 1995; Giacobbi et al., 2004; Gould et al., 1993; Scanlon et al., 1991) supports a dynamic and bidirectional relationship between the cognitive appraisal of a potentially stressful event and the coping response (Lazarus & Folkman, 1984). The transactional theory of stress and coping is consistent with the relational perspective of the RCT in two ways. First, personal growth and development does not occur in isolation but rather through relational movement with others (Jordan et al., 1991). Stress appraisals and coping also occurs in a dynamic, recursive manner on affective states such as depression (Lazarus, 1999). Secondly, Lazarus (1999) refers to relational meaning of the person-environment relationship as the primary influence on the stress and coping process and emotion. This is consistent with the need for female college athletes to experience relational health with significant others, including coaches, as indicated by mutual, authentic, and intimate relationships. Relational meaning of potentially stress provoking events for female college athletes is influenced by the quality of relationships she shares with others in the athletic community and in particular with the head coach. Therefore, it is likely that relational health in female college athletes is associated with perceived stress. Specifically, relational health has the potential to serve as a protective factor against excessive stress, which may result in a more satisfactory athletic experience.
A Transactional Theory of Stress and Coping; The CMRT of Emotion

Stress and Emotion

According to Lazarus and Folkman (1984), individuals experience stress when they appraise a situation as taxing or exceeding their personal resources, and the appraisals fall within the categories of threat of harm, loss, or challenge to their well-being. While harm and threat appraisals are associated with stress emotions such as fear, anxiety, and anger, challenge appraisals typically result in positive emotional states (Lazarus, 1999). Anshel et al. (2001) contend that challenge appraisals provide opportunities to achieve personal growth, mastery and prosperity by expanding or acquiring additional resources outside of one’s repertoire to meet a demand. After individuals cognitively appraise a given situation, emotions arise.

Emotion as defined by Lazarus (2000) constitutes the most important phenomena of stress, as it provides a deeper understanding of the adaptational struggles of humans. Lazarus emphasized the importance of relational variables as part of the cognitive motivational relational theory, CMRT. Concepts of the CMRT include “causal cognitive, motivational, and relational variables and processes involved in arousing and sustaining an emotion” (p. 230). Specifically, an emotion is a phenomenon that manifests through “an organized psychophysiological reaction to ongoing relationships with the environment,” (Lazarus, p. 230) most often in interpersonal or social contexts. Emotion encompasses personal values, goals, belief systems, and resources, which combine with environmental variables to collectively shape appraisals. From this perspective, one’s cognitive evaluation is predicted to mediate the experience of emotion (Lazarus), as appraisals involve the weighing of an event that impacts their overall well-being. Reflectively, appraisals change one’s emotional responses, and the personal meaning of
the stressful encounter inevitably should change as well. This is otherwise known as relational meaning. Unlike previous models of stress and coping, shifts of attention and changes in the person-environment relationship must be included in the stress analysis and appraisal. The concept of relational meaning can help practitioners better understand individual differences between and within persons “in the emotional life” (Lazarus, p. 234).

Emotions also influence performance in competitive sports (Lazarus, 2000). According to Lazarus, stress is “a major factor in the failure of athletes to fully and effectively utilize their skills in diverse types of performance” (p. 229). Sport is considered an “emotional experience” for many athletes (Jones, 2003) and an athlete’s state of emotion can determine the outcome of a competition through the training process and during the actual competition (Butler, 1996, as cited in Jones). Many scholars (Burton, 1988; Gould, Petlichkoff, Simons & Vevera, 1987; Hanin, 2000; Lazarus, 2000) suggested that an athlete’s emotional state could influence levels of motivation as well as physical and cognitive functioning (Jones, p. 474). Furthermore, emotions influence the stress response and future appraisals of stress through the construction of the person-environment relationship (Lazarus, 1999).

**The Stress Response**

The result of a stress appraisal is the stress response, otherwise known as coping. Researchers (Anshel et al., 2001; Carver et al., 1989; Krohne, 1993; Lazarus, 1990) generally agree that coping consists of “conscious psychological and physical efforts to improve one’s resourcefulness” (Anshel et al., p. 45), such as building self-confidence, reinterpretation of stressful events, and increased perception of self-control to diminish
external demands and alleviate stress. It is important to recognize that the concept of coping does not infer effectiveness; rather it simply requires a conscious effort (Anshel et al.). For example, an athlete may utilize coping behaviors that are ineffective, inefficient and inappropriate for a specific situation (Crocker, Kowalski & Graham, 1998); and because these behaviors are indicative of a conscious decision prompted by a stressful encounter, they are considered coping strategies. Coping is considered a “powerful mediator” between cognitive appraisals of stressful events and various physical and emotional outcomes (Lazarus, 1999, p. 121). Coping tends to alter the way stress impacts the way people view and respond emotionally to events.

Although the coping process is defined separately from the stressful stimulus, the concept of coping should not be separated from perceived stress. Coping constitutes more than reactive behavior prompted by a stressful encounter, and therefore, stress and coping should be considered as a single topic (Lazarus, 2000). According to Lazarus (2000) the stress appraisal provokes emotions and therefore the stress appraisal and the emotional response should also be included under the same topic. The appraisal, emotional response, environment, and personal differences between and within groups are elements of relational meaning (Lazarus, 1999). Appraisals, emotions, behavioral responses, and the events that provoke them do not occur in an isolated fashion as some researchers once observed and studied in their effort to seek methodological convenience and scientific merit (Lazarus, 1999). Rather, all of these concepts must be considered within the contextual fabric (i.e., the socio-historical, political, and personal context) in which they exist for the person experiencing them. An examination of variables to carefully consider from the theoretical framework of the CMRT follows.
Variables of the Person-Environment Relationship

By definition of the CMRT, cognitive evaluation or appraisal of an event is influenced by the person-environment relationship, and the emotional response acts as a mediating variable, which further influences or changes the personal meaning of the event (Folkman & Lazarus, 1985, 1988). Lazarus (1999) referred to the CMRT as a transactional model based upon the dynamic nature of the stress and coping phenomenon as a process rather than a continuum. This approach more easily lends itself to the inclusion of situational, complex and constantly changing variables in the stress and coping process. Therefore, instead of approaching variables as fixed, such as how personality was once viewed, Lazarus (1999) explored the interactive and contextual variables that complemented the effect personality has on the stress and coping process. For example, personality is considered a critical factor in the stress and coping process. Personality is more or less constant in a person, and is used to describe a person across situations. However, it too can fluctuate depending on the mood of the person, the person’s level of development or relational health (Jordan et al., 1991; Jordan, 1994, 1997a, 1997b, 1997c, 2003), and the particular time and environmental conditions under which a stressful event occurs. Therefore traits and dispositions must be considered within and across situational contexts when exploring stress appraisals and the coping response in practice.

State Versus Trait and Personality Variables in Athletics

Athletes’ who possess specific personality characteristics that consistently influence their stress appraisal also utilize specific coping strategies (Lazarus, 1999). For example, if an athlete uses similar coping strategies following different types of stressors, or copes similarly over repeated experiences of the same type of stressor, then the trait
coping model is supported (Lazarus, 1990; Lazarus & Folkman, 1984). Lazarus (1999) expanded this viewpoint with his proposal of a transactional model, the CMRT, which allows for the possibility that an athlete’s coping strategy is also a function of the type of stressor. Through the theoretical lens of the CMRT, it is unwise to place excessive emphasis on personality traits as a predictive construct for coping strategies. However, it is possible that a distinct pattern of coping responses could indicate a personality trait. Personality traits are one of many characteristics that influence appraisal, emotion, and coping responses to a wide source of stressors. Certain traits in the wrong dose may repeatedly plague athletes by decreasing their ability to effectively utilize their skills to the fullest degree. One example of this is the “anxious personality,” or anxiety as a personality trait.

Anxiety is often the precursor to both peak performance and decreased functioning. Anxiety in certain doses can bring devastation, or conversely, it may prompt a personal best in performance. The right amount of anxiety can lead to optimal levels of functioning for certain individuals at certain times. Psychologists refer to the inverted-U hypothesis, whereby increased stress levels result in increased performance levels up to a pivotal point, at which time performance is greatly reduced as anxiety levels continue to increase (Hardy, Jones & Gould, 1996). According to Hardy and colleagues, athletes experience high state anxiety when confronted with a threatening situation. High state anxiety is different when compared to high trait anxiety, as trait anxiety refers to a general condition certain individuals possess. Individuals and athletes with a high trait anxiety, or anxiety condition, respond to unthreatening stimuli with high levels of state anxiety (Hardy et al.).
Common antecedents for anxiety include attitude toward performance, perceived readiness to perform, performance goals, and the external environment (Hardy et al., 1996). Sources of stress include performance problems, competition, organization and officiating problems, interpersonal and team management problems, poor facilities, environmental conditions, and financial and time pressures (Hardy et al.). Athletes with a general condition of anxiety may be disadvantaged since they are more sensitive to stressful events and perhaps appraise an event as a threat of harm or loss more readily than those who do not have a generally anxious demeanor. However, it is important to consider that even athletes with high trait anxiety may not be negatively affected in a competitive situation if they perceive low levels of state anxiety (i.e., the particular situation they are in elicits optimal levels of anxiety for superior performance). Even so, “high trait anxious performers show large elevations in physiological arousal when they are state anxious, and are therefore more prone to catastrophic decrements in performance than low trait anxious performers” (Hardy et al., p. 160). Therefore, athletes’ who present with high levels of trait anxiety may benefit from individual and team interventions that help the athlete scale the level of anxiety to an optimal level for performance and personal purposes.

Recent studies suggest that social connectedness with others may reduce levels of anxiety. Social connectedness among men and women were associated with levels of anxiety, self-esteem, and social identity (Lee & Robbins, 1998). Social connectedness or sense of belonging was negatively related to trait anxiety. The results revealed a stronger association between social connectedness and trait anxiety compared to social support and collective self-esteem. According to Lee and Robbins (2000), connectedness among women was also positively related to self-esteem. The results of this study support the
idea that relational health (i.e., mutually empowering connections with others; RCT) is associated with the stress and coping process among female college athletes. Therefore, facilitating social connectedness among members of the athletic community including teammates and coaches may help an athlete manage anxiety at an optimal level.

Another characteristic that is observed in elite athletes is perfectionism. Due to the rigorous demands and high standards for performance, athletes must perform in an environment that requires perfection. “Individuals who set excessively high goals, base their self-esteem on achieving these goals, or make overly critical self-evaluations are said to be perfectionists” (Frost, Marten, Lahart & Robsenblate, 1990, as cited in Anshel et al., 2001, p. 65). However, athletes who set high standards often accomplish more and gain more satisfaction from their achievements, which is a desirable quality. Therefore, it is important to distinguish perfectionism from neurotic perfectionism, in which the athlete is never satiated, is always unfulfilled, self-critical, and unhappy even when he or she is highly successful in the athletic endeavor. In this case, the athlete will experience harmful effects of perfectionism such as chronic and intense levels of stress, lower expectations for future success, reduced self-efficacy and esteem, higher anxiety, and poor relationships with others (Anshel et al.).

According to Anshel and colleagues (2001), neurotic perfectionism has serious implications on the coping process. For example, people with neurotic perfectionist tendencies are more likely to find experiences stressful, are less able to use avoidance or distancing techniques to cope, are less tolerant of others, and become more frustrated with athletic participation. Furthermore, athletes with these tendencies tend to find their success less desirable and feel less satisfied with their accomplishments. Consequently, they may be more prone to experiencing burnout (Smith, 1986). Burnout is a term that
illustrates the consequences of chronic stress, which “ultimately results in termination of sport participation, [and] can be avoided through early detection of stress, proper intervention and maintenance throughout an athlete’s career” (Anshel et al., p. 65). One way to manage the negative effects of neurotic perfectionism and avoid burnout is to cultivate relational health (RCT) with all members of the athletic community. Subsequently, female college athletes may report an increased sense of self-efficacy and esteem, sense of empowerment (Jordan et al., 1991), control over their situation (Anshel et al.), less stress (Belle, 1982), and ultimately a more satisfactory athletic experience.

All emotions reflectively affect the stress and coping process (Lazarus, 1999). The term optimism has a positive connotation and describes a favorable personal quality. An optimist holds favorable expectations for the future and expects things to go their way while experiencing increased levels of control in their environment (Anshel et al., 2001, p. 64). Researchers found that “individuals who score high on optimism as a disposition possess a stable, consistent coping pattern and cognitive schema” (Anshel et al., p. 64). In addition to a stable coping pattern, individuals who have an optimistic disposition also cope and adapt to change or stressful situations more effectively when compared to those who are optimistic only in certain situations (Anshel et al.). By contrast, situational optimism is characterized as unstable and permeable across different situations. Individuals who are temporarily optimistic or who present with a pessimistic disposition utilize different coping strategies than individuals who have an optimistic disposition. Optimists seek social support consistent with Krohne’s (1996) concept of approach-coping, while pessimists turn to denial, distancing and disengagement from goals, similar to avoidance coping strategies (Anshel et al.). One way to assist athletes with a pessimistic disposition is to cultivate relational health (i.e., mutually engaged, respectful
and empowering growth facilitating transactions between the athletes and significant others). Connected coaching (Bredemeier, 2001; i.e., coaches modeling the constructs of relational health with their athletes) is one example of how coaches can influence the recursive process of stress and coping in a healthy direction.

Hardiness is another personality trait that commonly characterizes athletes and is mentioned in the stress and coping literature. Hardiness was first defined by Rosenbaum (1990) and emerged from the concept of learned resourcefulness. Hardiness represents a repertoire of cognitive and behavioral skills that an athlete can utilize to regulate distracting or harmful emotions and cognitions that might otherwise diminish performance (Anshel et al., 2001). Hardiness and self-control are often compared as desirable attributes, as both constructs share the characteristics of “enduring, stable psychological dispositions which jointly affect health and well being, and which reflect adaptive coping” (Anshel et al., p. 66). However, the lack of hardiness in female athletes may be misinterpreted by coaches or members in the athletic community.

Kobasa (1979) and Kobasa and Puccetti (1983), defined hardiness as an internal construct perceived by relational theorists as an “individual characteristic associated with resistance to stress, a form of resilience” (Jordan & Hartling, 2002, p. 58). Jordan and Hartling agreed that the qualities of “commitment, control, and challenge (i.e., hardiness)” may accurately define stress resilience for some individuals; however, these characteristics are not always the most useful indicators of stress resilience in women (p. 58). A study that focused on African American mothers on welfare found that relational practices such as connection, collaboration, and community action were utilized to overcome the negative effects of poverty and racism (Sparks, 1999).

Relational theorists’ (Genero, 1995; Stewart, 1994) contend that the lack of attention on
relational and collaborative characteristics that contribute to stress resilience in the lives of women and many marginalized populations is an implicit limitation in much of the research (Jordan & Hartling). While hardiness remains a well-recognized construct, it is important to expand on this definition “to embrace the complexities of women’s experience” (Jordan & Hartling, p. 59) by including the role of connection in the lives of female athletes.

**Stress Appraisals with Athletes**

Cognitive appraisals greatly influence perceived stress and subsequent coping strategies in the athletic setting (Anshel et al., 2001; Giacobbi & Weinberg, 2000). The cognitive appraisal is a key concept in the transactional model proposed by Lazarus (1999). Lazarus pointed out the potentially infinite number of concepts that greatly influence how one appraises an event as stressful. In effort to make sense of perhaps the most common experiences in which individuals formulate stress appraisals, Lazarus specifically focused on four categories of situational experiences. According to Lazarus, the formal environmental variables that consist of “situational dimensions include novelty-familiarity; predictability-unpredictability; clarity of meaning-ambiguity; and temporal factors, such as imminence, timing, and duration” (p. 77). The interpretation, or more accurately an appraisal, is like a cognitive schema that is partly constructed from experience learned within and influenced by the environmental context. Situational circumstances, coupled with permanent and transient traits of the external environment, personality, internal and external resources, and the level at which one can predict the event, greatly influences the appraisal and coping process.

Interpersonal relationships and social support heavily influence the stress and coping process among athletes. External variables such as demands, constraints, opportunities, and culture (Lazarus, 1999) influence appraisal. In addition to these
variables, personal variables such as personality, vulnerability, and resources influence our reactions through the process of appraisal. Consistent with the RCT, personal resources include social support in the context of positive relationships with mentors, peers, and community. How one copes with the stress greatly influences further interpretation or re-appraisal of an event as well as subsequent coping strategies (Lazarus, 2000). Recent research supports the recursive nature of the stress and coping process (Holt & Dunn, 2004).

**Reappraisals with Athletes**

Coping can reduce stress reactions and can impact the relationship between a person and the environment whereby the meaning of that relationship changes. As stated earlier, coping must be considered as part of the same unit with stress, but measured separately from its outcomes (Lazarus, 1999), as it depends on the type of person, threat, stage of stressful encounter, and the individuals’ subjective health or social functioning. Thus, coping responses are often contingent upon multifaceted events and resources. The coping response utilized may change the emotion experienced during a stressful event and subsequently cause a shift in the initial appraisal, which then influences the perception of the stressful event as more or less harmful than originally perceived. Harmful coping responses may also initiate an additional stressful encounter and create a need to adapt healthier coping strategies. Harmful ways of coping manifest through physical or emotional deficits and life-threatening or self-destructive behaviors that hinder healthy and effective daily functioning. Unhealthy coping responses include starvation or overeating, overexercise, substance abuse, or indulging in addictive behavior such as shopping or gambling. Other maladaptive strategies include revenge,
disengagement and anger “when it is impulsive and in the absence of planning or thinking” (Anshel et al., 2001, p. 46).

Researchers (Anshel et al., 2001) believe that maladaptive coping contributes to the intensity of the perceived stress and has more deleterious emotional and performance outcomes (Anshel, Brown, & Brown, 1993; Lazarus, 1990; Wheaton, 1997). However, maladaptive coping behaviors traditionally classified as self-defense mechanisms, such as denial, avoidance, or sublimation, may actually help an athlete cope effectively with a harmful stressor. Lazarus (1999) explained that the key principle in regard to the coping process is change. Coping strategies vary according to the significance of the coping behavior and requirements of each threat as well as the status of the threat. Although most researchers maintain that it is impossible to determine the difference between adaptive and maladaptive coping (Skinner et al., 2003), an argument is made in favor of distinguishing the two. According to Skinner et al., a distinction can be made based on three factors: long-term consequences, their subjective experience, and their current qualities. Furthermore, Skinner and colleagues purported that “people who show prolonged use of ways of coping such as helplessness, opposition, or social withdrawal can be considered at developmental risk” (p. 231). The idea that social isolation is a risk factor for healthy development is consistent with the RCT and should be considered in the coping assessment of female college athletes.

The Transactional Process of Stress and Coping

Acute and Chronic Stress

Examples of acute stress include falling out of the blocks at the start of the 100 meter dash, a coach reprimand, negative reactions from spectators or teammates, making an error, and experiencing pain or injury (Anshel et al., 2001). In response to an extreme,
unusual, or hurtful experience and the resulting stress appraisal, an individual will
experience changes in their psychological, physiological, and behavioral responses
(Anshel et al.). Especially intense experiences will influence an athlete’s feelings,
thoughts and behaviors such as perception, attention, retention and autonomous
performance (Anshel et al.). Despite the levels of intensity or nature of the stress, the
primary difference between acute and chronic stress is the period of time in which the
individual experiences the stress.

Unlike acute stress, chronic stress is prolonged and leads to burnout, decreased
ability for effective decision making, reduced overall mental functioning, and reduced
levels of self-efficacy, esteem and confidence (Gotlib, 1997, as cited in Anshel et al.,
2001). Acute stress must be addressed in an effective and timely manner to avoid more
deleterious consequences of chronic stress. With sport-related chronic stress, the long-term
consequences include reduced participation in sport, reduced satisfaction, and
performance and mental withdrawal as evidenced by dropping out or quitting the sport
(Anshel et al.). According to Anshel and colleagues, failure to accurately interpret sport
related events and to respond rationally, specifically for those who engage in maladaptive
coping strategies, will result in chronic stress. Whether the stressful stimulus is chronic
or acute, the meaning of the stressful stimulus or its personal relevance to an individual
greatly influences how the stressful event is perceived and how one responds. Acute and
chronic stress does not exist in isolation; rather, it influences and is influenced by other
contextual variables, including relational health with members in the athletic community,
teammates, and coaches. Individual differences, specifically one’s threshold for stress,
may be related to individual stress appraisals, state and trait anxiety and even personality
dispositions. The transactional model of stress and coping is dynamic, bidirectional, and thus involves many aspects of personal, group, and environmental influence.

**Antecedent Conditions of Appraisals with Athletes**

Personal resources as described earlier in this review may contribute to personality traits that influence an athlete’s ability to be flexible or willingness to change. In regard to coping dispositions, Lazarus and Folkman (1984) purport that coping dispositions are not predictive of how athletes actually cope with naturally occurring stressful situations, while others feel that coping styles are useful predictors of coping behavior (Carver et al., 1989; Krohne, 1998 as cited in Hardy et al., 1996). Bouffard and Crocker’s (1992) research with 30 individuals with physical disabilities such as brain injury supported the idea that coping can be best understood by taking both the situation and coping dispositions into account. However, it is clear that personality remains a significant factor in predicting coping behaviors. Based on his research, Lazarus (1999) advocated that “reactions under stress cannot be predicted without reference to personality traits and processes that account for the individual differences in the ways people respond to a so-called stressful stimulus” (Lazarus, 2000, p. 55). However, it is generally agreed that personality alone cannot determine whether one perceives an event as stressful or not, and subsequently how that person copes with the event.

**The Process of Appraisal**

Coping is second in importance only to appraisal (Lazarus, 2000). The process of appraisal, according to Lazarus (1999), refers to the difference in interpretations of various stimuli across different people. Appraisal is also connected to how each athlete responds or handles the situation, known as coping. Appraisal and coping is not a linear process, but a complex and dynamic one intertwined with the environment. Furthermore,
appraisal is both personal and contextual. For example, two athletes may appraise an event similarly but respond in drastically different ways pending their personal resources, environmental situations, and the transactional or relational meaning of the event. Transaction, as opposed to interaction, is a word that adds personal connotation or meaning to the way in which an athlete perceives an event. Furthermore, the way in which an athlete evaluates the implications of the event is more accurately described by how an athlete apperceives the event rather than how she perceives the event (Lazarus, 1999, 2000).

Stress appraisals, according to Lazarus and Folkman (1984) fall within three types of focus, and they include harm or loss, threat, and challenge. Harm and loss interpretations of stress occur when an athlete experiences a physical or mental error, reprimand, or injury (Anshel et al., 2001). According to McCrae (1992), the concern with this type of appraisal is that individuals are more likely to use more immature, passive coping strategies as a result. Examples of coping strategies may provide insight to how the individual perceives the stressful event. For example, if an athlete’s appraisal of a stressful event is one of harm or loss, the athlete most likely perceived the event as one that is outside of their control, as evidenced through feelings of helpless, a pessimistic response or engagement in wishful thinking (Dewe, 1992). Coping strategies as such may be counterproductive to sport-related situations in which self-control is a preferred method of coping for athletes and coaches who place high value on self-discipline, confidence and mastery (Anshel, et al.). However, attributing blame to an external agent is perceived as advantageous or more useful in certain conditions of low controllability.
A threat appraisal represents the athlete’s state anxiety in a situation, as it reflects the amount of concern one has for the way in which a situation might turn out (McCrae, 1992). A threat appraisal is characterized by questions such as “what if?” and “I hope” and consists of expectations of possible future harm or loss (Anshel et al., 2001; Lazarus, 1999). An example within the sport context is an athlete’s feeling of uncertainty about a match based on an opponent’s previous success. If the athlete uses this appraisal in a reflective manner with a focus on how his or her opponent’s previous performance may influence the current match, it may be helpful to predict and prepare for the opponent’s strengths and weaknesses to win a match (McCrae).

The last category of appraisal is the challenge appraisal. More experienced and mature athletes are more likely to make nonstressful appraisals or view stressful events as opportunities for overcoming adversity and increasing personal growth and sense of control (Anshel et al., 2001). Challenge appraisals result in less stress due to the following reasons: athletes tend to be more productive in their response; stay focused on the task; and maintain confidence, alertness, and proper arousal level for optimal performance (Anshel et al., 2001). According to Lazarus (1999), one is more likely to appraise an event as stressful if it has personal meaning and if the event is pertinent to one’s goals, beliefs, and motivations. Therefore, appraisals may also be categorized according to the personal relevance of the potentially stressful event (Lazarus).

In the examples of stress appraisals mentioned, sport psychology researchers attributed athletic experience and maturity to an athlete’s ability to respond to potentially stressful situations with nonstress appraisals or appraisals of challenge rather than appraisals of harm, loss or threat (Anshel et al., 2001; McCrae, 1992). While athletic experience and maturity are important constructs to consider, one must define and
measure maturity across diverse people with caution. If maturity is measured as many traditional developmental models propose—in sequential stages of individuation, self-reliance, and autonomy through detachment and separation (Bowen, 1978; Erikson, 1963; Kohlberg, 1969)—then perceptions of female athletes’ need for affiliation (Miller, 1986) as “expressed in connectedness, relatedness, interdependence and belonging” (Coy & Kovacs-Long, 2005, p. 138) can be easily misinterpreted as a passive or immature (McCrae) response to stress. According to the RCT a lack of connection with members in the (athletic) community, peers (teammates), and mentors (coaches) is a source of psychological stress and therefore has a profound effect on the personal relevance of an event. The importance of relational meaning on appraisal is of equal importance in understanding the patterns of stress appraisals and coping responses in female college athletes.

The transactional model of stress and coping (Lazarus & Folkman, 1984) predicts that situational appraisals are key determinants to athletes’ coping responses, which influence the situation and future appraisals. Situational appraisals and coping responses evolve as they are influenced by the dynamic nature of emotion. Four environmental variables that influence stress and emotion include demands, constraints, opportunities, and culture. Personal variables interact with environmental variables, which collectively influence coping responses via the process of appraisal (Lazarus, 1999). When the person-environment relationship is combined with the subjective process of appraisal, the product is what Lazarus (1999) referred to as relational meaning (Lazarus, 1999). Relational meaning is centered on the personal significance of an interpersonal or person-environment relationship. Whether the appraisal of a stressful event is caused or perpetuated by biological or environmental factors is not as important as the relational
meaning of the person-environment relationship. Appraisals may happen in a step-by-step fashion and take on different meanings as they evolve from primary and secondary levels of appraisal.

**Primary and Secondary Appraisal**

According to Lazarus (1999) “primary appraising had to do with whether or not what is happening is relevant to one’s values, goal commitments, belief’s about self and world, and situational intentions” (p. 75). Primary appraisal is otherwise known as an evaluation of coping options or responses. The coping process for athletes begins with a stress appraisal of the person-environment relationship and demands placed upon the individual. Secondary appraising, according to Lazarus (2000), refers to a cognitive-evaluative process that focuses on how to handle a stressful interpersonal environmental relationship when there is a primary appraisal of harm, threat or challenge. Stress occurs when a stimulus threatens the attainment of a goal of high importance to an individual (Lazarus, 2000), and two types of appraisals occur in a primary and secondary fashion. First, the athlete must determine whether the situation presents a demand that is stressful. As a result of this evaluation or primary appraisal, the athlete must then make a judgment “relative to the status and stability of resources available for dealing with stress and likely outcomes” (Hardy et al., 1996, p. 206).

Primary appraisal is influenced by how relevant the stressful stimulus is to the athlete’s values, goal commitments, and world-view, beliefs about oneself, and situational intentions or motivations. The personal judgment and formulation of a response is referred to as secondary appraisal. Primary appraisal is different from secondary similar to the way interpretation is different from an inference. Specifically,
when an athlete makes a primary appraisal she evaluates the situation and then interprets and categorizes the stressful event to determine if and how the encounter is stressful. After the primary appraisal and a subsequent evaluation of the meaning of the stressor, she must then focus on her total resources to determine what she can do about the stressor. In addition to understanding primary and secondary appraisal, it is also important to remember that coping behaviors change just as stressful encounters change. Consequently, how an athlete perceives the harm, loss, threat, or challenge of the stress also changes. As a result, the perception of transactional meaning may be the best way to understand the dynamic stress and coping process. Primary and secondary appraisals determine the quality and intensity of the stress an athlete perceives which, in turn, influences coping (Hardy et al., 1996).

**Changes in Cognition and Reappraisals**

Cognitive reappraisals change after a coping strategy is employed and a new, different interpretation of the stressful situation emerges. Reappraisals are ongoing assessments of the situation and personal resources available for utilization. Consequently, athletes have an opportunity to reevaluate the situation as a less stressful event and reduce anxiety to maintain optimal levels of arousal. According to Lazarus (2000), “although changes in the environment can result in a change in the appraised relational meaning, appraisal changes are often self-generated” (p. 235). Reappraisals are self-serving and necessary for an individual to change the relational meaning of the person-environment relationship. Furthermore, Lazarus found that coping and the appraisals that underlie the coping strategy influence which emotion will occur, how they will change accordingly, and that “this influence begins at the outset of the process
whereby the emotion is aroused” (p. 235). The analysis applied in this example represents how coping arbitrates the response of the “emotion-provoking relationship and subsequent emotions” (Folkman & Lazarus, 1988 as cited in Lazarus, 2000, p. 235).

Sport psychology researchers have examined stress appraisal within the athletic context as an integral part of a bidirectional stress and coping process in several studies (Anshel et al., 1991; Crocker & Graham, 1993; Giacobbi et al., 2004; Gould et al., 1993; Gould, Udry, Bridges & Beck, 1997; Haney & Long, 1995; Kim & Duda, 2003; Scanlon et al., 1991). In these studies, the researchers examined the influence of stress appraisals on sport-specific competitive situations, interpersonal relationships, athletic injury, coping effectiveness, and personality traits and states. Lazarus (2000) examined how appraisal, coping, and relational meaning similarly influence competitive athletes as compared to nonathletes with regard to their athletic performance. Lazarus encouraged sport practitioners to turn their attention away from stress as a stimulus and toward discrete emotions as a significant influence on the stress and coping process.

Affirmation, validation, and mutual engagement are examples of behaviors that elicit positive emotions and can be found in psychologically healthy interpersonal relationships. Social support was found to have a significant influence on the stress and coping process and is consistent with the RCT. Connections in the form of growth-fostering connections result in positive psychological experiences for female college athletes (Bredemeier, 2001; Cutrona & Russell, 1990; Giacobbi et al., 2004; Holt & Dunn, 2004; Rees & Hardy, 2000) and therefore have the potential to change the meaning of a stressful encounter at an emotional level.
Problem/Emotion and Approach/Avoid Dichotomies with Athletes

Similar to stress appraisals, the coping process also has categories of responses. Researchers have commonly categorized coping as problem-focused or emotion-focused (Folkman & Lazarus, 1988). Two additional dichotomies that describe approaches to coping include approach-behavioral or cognitive coping and avoidance coping (Roth & Cohen, 1986). According to Lazarus (2000), active coping behaviors can change the meaning of a stressful event by changing the person-environment relationship, known as problem-focused coping. In the counseling profession, some practitioners may refer to this as solution-focused coping. The problem solving approach encompasses the creative utilization of active coping options, which help eliminate or change the stressful encounter. As a result of this process, new meaning of the person-environment relationship emerges and the exploration of the stressful event leads to personal options and resources to enhance creativity for solutions. The purpose of this approach is to change the reality of the troubled person-environment relationship (Lazarus, 1999). By contrast, Lazarus defines emotion coping as a more paralyzing response that focuses on the need to regulate the emotional response of a stressful event, such as avoidance, or cognitive reinterpretation of the event. This approach does not change the reality of the stressful event, rather it focuses on how one responds to the event.

Roth and Cohen (1986) referred to several characteristics that represent approach coping. According to Roth and Cohen, approach coping is preferred with athletes who perceive control over a situation, identify the source of stress, and can rely on good communication skills to discuss the issues. Athletes in this scenario need time to resolve the problem, self-confidence particularly in their ability to resolve the issue and will most likely be disadvantaged if they do not resolve the issue (Anshel et al., 2001). Approach
cognitive coping represents an athlete's attempts to improve her emotional status and mitigate the effects of stress by “analyzing” the event, “planning an effective response, [and] using cognitive coping strategies” to cope (Anshel et al., p. 54). Examples include positive self-talk and self-confidence building. According to the RCT, growth-fostering relationships promote self-efficacy, self-confidence mutual engagement and communication. To increase one’s perception of control over her situation, the athletic culture must establish and maintain a collaborative and safe environment where each member feels comfortable taking risks. Relational practices within an environment further empower female athletes to take action (Miller, 1986).

Unlike proactive cognitive and behavioral approaches to coping, the avoidance coping model reflects a conscious attempt to physically or mentally distance oneself from the stressful event or implications of the stressful event (Krohne, 1993 as cited in Anshel et al., 2001). This may be helpful when the event does not call for an active response and distancing is a more effective way to conserve energy for use in a more productive manner. An illustration of the avoidance-behavioral approach to coping is when an athlete physically removes himself or herself from the source of stress. Avoidance-cognitive approach to coping involves discounting, self-deprecating humor, cognitive reappraisal and rationalization (Anshel et al.). Roth and Cohen (1986) suggest that avoidance coping is preferred when the situation is out of the individual’s control, emotional resources are limited, and source of stress is not clear and a decision has to be made quickly, or when there is no or little chance of resolving the issue (Anshel et al.). In their study of elite table tennis players, Krohne and Hindel (1988) found that the players who used avoidance coping strategies in response to committing an error suffered lower anxiety than their less successful opponents. While this may be effective in the
context of athletic performance, disengagement and isolation from growth-fostering relationships is a source of psychological suffering for women (Miller, 1986; Miller & Stiver, 1997), which according to Lazarus (1999), could further perpetuate a negative stress appraisal and chronic feelings of distress. Based on the evidence that chronic disconnection is a source of depression for women and relational health is a protective factor against depression (Arce, 2004; Belle, 1982; Miller, 1986; Miller & Stiver, 1997), cultivating relational health among members of the athletic community is a proactive approach to improving the athletic experience for female college athletes.

**Coping Strategies and Hierarchies in Athletics**

Primary coping strategies are consistently organized in similar ways throughout the stress and coping literature (Aldwin & Revenson, 1987; Carver et al., 1989; Folkman & Lazarus, 1985, 1988; Folkman et al., 1986; Scheier, Weintraub, & Carver, 1986; Stone & Neale, 1984; Vitaliano, Russo, Carr, Maiuro, & Becker, 1985). Seven coping strategies appeared at least twice in factor-analytic studies of thoughts and behaviors self-reported by individuals, and they include problem-solving, wishful thinking, problem avoidance, social support, cognitive restructuring, self-criticism, and emotional expressions (Tobin et al., 1989). Despite the consistency among coping strategies found, these researchers agree that the organization of coping strategies into two higher order categories can be problematic (Carver et al.).

Sport psychology researchers have implemented a higher order structure of coping which places individual coping strategies into problem-focused or emotion-focused categories when studying the stress and coping process with athletes (Crocker, 1992; Crocker & Graham, 1995). Lazarus and Folkman (1984) were the first to suggest
using a problem-focused category and an emotion-focused category; however, most researchers recognize that restructuring the higher order categories of coping is warranted (Carver, Weintraub & Scheier, 1989; Folkman & Lazarus, 1985; Folkman et al., 1986; Parkes, 1984; Scheier et al., 1986). A two-factor structure of engagement versus disengagement may be a more relevant approach to study the stress and coping process among female college athletes, as problem-focused and emotion-focused categories have been criticized for not being mutually exclusive (Skinner et al., 2003). Tobin and colleagues (1989) indicated that studies with limited numbers of extracted factors to two or three general dimensions commonly find that the factors resemble engagement and disengagement (Maddi, 1986; Parkes, 1986) and the approach and avoidance constructs (Mullen & Suls, 1982; Roth & Cohen, 1986; Skinner et al., 2003; Suls & Fletcher, 1985). Furthermore, Tobin and colleagues stated that their findings were consistent with correlations among primary dimensions of coping in other studies (e.g., Bouffard & Crocker, 1992; Crocker; Crocker & Graham; Folkman & Lazarus, 1980, 1985; Grove, Lavallee, & Gordon, 1997; Madden et al, 1989, 1990).

Two hypothesized factors (engagement and disengagement coping) were chosen for this study based on their relevancy to a sport-specific situation (Haney & Long, 1995). Disengagement coping was defined as “focusing negatively on self and avoiding the task” and engagement coping was defined as “engaging in active coping to manage the situation (e.g., focusing positively on the task)” (Haney & Long, 1995, p. 1732). This coping paradigm fits well with the premise of the RCT, where concepts such as mutual engagement connote healthy, adaptive behavior and disengagement indicates
psychological suffering (Miller & Stiver, 1997). A detailed description of this coping instrument is presented in the following chapter.

**Performance Stress**

Performance stress occurs across different disciplines, manifests differently between individuals and environmental settings, and is sometimes difficult to assess because an appraisal is made within the context of the person-environment relationship at a specific time. However, experiences of performance related stress is a common emotion for elite athletes who invest so much time and energy into a demanding endeavor that requires high standards of performance and in many situations, perfection. Lazarus (1999) extended his expertise on the cognitive-motivational-relational theory of emotion in effort to complement the field of sport psychology. Specifically, Lazarus’s relational framework of stress and coping adds dimension and depth to how sport practitioners understand and work with athletic performers.

According to Lazarus (2000), athletes commonly report stress as a major influence on performance, which can enhance and inhibit full utilization of skills. Perceived stress or stress appraisals can indirectly or directly affect many types of performance as well as future performances. The sport psychology literature indicates that perceived stress might also inhibit optimal athletic performance and satisfactory experiences in sport (Burton, 1988; Gould et al., 1987; Lazarus; Scanlon et al., 1991). Lazarus illustrated six separate appraisal judgments relevant to athletes in the sport context, and they include “goal relevance, goal congruence, type of ego-involvement, options for coping, coping potential, and future expectations” (Lazarus, p. 234). The emotions experienced depend on the appraisal in terms of the significance of what is
happening for a person’s well-being and the coping process (Lazarus, 1999, 2000). In many instances, performance defines the personal qualities of an athlete and is therefore connected with the athletes’ psychological well-being.

**Rationale**

**Support for a Theoretical Synthesis**

The potential for growth-fostering relationships among members of the athletic community to serve as a mediating variable between the stress and coping process and athlete satisfaction in female college athletes warrants further research. Lazarus’s transactional theory of the stress and coping process (CMRT) offers a complementary perspective to the RCT as a relational model of psychological health and identity development for college females. Specifically, the CMRT is a fluid model in which stress appraisals and coping responses, or reappraisals and coping responses, occur in a reciprocal fashion, similar to the relationship between mutual engagement and growth-fostering relationships (RCT). Furthermore, a central focus of the CMRT is based on relational meaning, i.e. the role of the person-environment relationship, interpersonal relationships and social support as significant elements of the stress and coping process.

Lazarus (1999) expanded on previous models in which personality and innate behavior patterns explained physiological and behavior reactions to a stressful encounter for all persons (Seyle, 1956). The transactional nature of the CMRT reflects Lazarus’s intent to appreciate situational differences, the socio-cultural context, and historical and political environments as strong influences on the person-environment relationship from which individuals construct stress appraisals. Subsequently, researchers have a new way to examine stress, coping, and satisfaction in female college athletes. An alternative
A theoretical approach that allows researchers to measure stress and coping from a relational perspective is utilized in this study by integrating the CMRT and the RCT. The CMRT is an ideal framework for researchers and practitioners to utilize to further examine relationships as both a source of stress and as a protective factor against stress (Belle, 1982; Jordan et al., 1991; Lazarus, 2000), as well as a medium through which people cope with stress and experience personal growth. Social support and relationships in general are also considered under the CMRT as influential aspects on the stress response, appraisal, and reappraisal. In terms of a shared epistemology, the RCT and CMRT grew from researchers’ efforts to expand the existing paradigm and broaden the capabilities of theory and research to reach and represent more people in an accurate and inclusive way.

A vast amount of sport psychology research has focused on relationships in the form of social support, the athlete-coach relationship (mentor relationship), or relationships with peers in the athletic or general community. The consensus among researchers is that social support has a significant influence on the stress and coping process (Crocker & Graham, 1995; Holt & Dunn, 2004; Jordan et al., 1991; Madden et al., 1989; Miller & Stiver, 1997; Lazarus, 1999, 2000; Lazarus & Folkman, 1984). Rees and Hardy (2000) interviewed 10 high-level athletic performers in an effort to explore social support experiences in sport. The results of this study validated the idea that emotional support, defined by “the ability to turn to others for comfort and security during times of stress, leading the person to feel that he or she is cared for by others” (Cutrona & Russell, 1990 as cited in Rees & Hardy, p. 335), is commonly utilized as a coping strategy among athletes. Rees and Hardy expressed the need for further examination of social support “transactions” with coaches, players, trainers, friends, and
psychologists specifically within the context of dealing with sport-related stress of high-level performers. In response to this need, the Relational Health Indices (RHI; Liang, Tracy, Taylor, Williams, et al., 2002) has strong psychometric properties and was validated with a diverse, college-aged population. Thus, the RHI, developed by relational theorists as a way to measure relational health (RCT) with peers, mentors, and the community, is utilized in this study to further enrich scholarly research on the stress and coping process and athlete satisfaction with female college athletes.

Ability to work well with others and the need to build and maintain positive interpersonal relationships is a central theoretical component of the RCT and a theme throughout sport psychology research on stress and coping with female athletes (Giacobbi et al., 2004; Jowett, 2003; Rees & Hardy, 2000; Rees et al., 1999; Scanlon et al., 1991). Individuals who utilize the strengths of others increase their own personal resources in the process of building and nurturing positive interpersonal relationships. Pivotal people in the social environment influence the athlete’s ability to rely on cognitive processes to reappraise the situation with less harm (Giacobbi et al.). As a result, athletes are able to change the meaning of the appraisal-coping relationship to approach the stressor with problem solving rather than emotion-focused coping strategies.

Findings of this study (Giacobbi et al., 2004) support the link between relational health with significant others, the stress appraisal and adaptive coping responses that enable the athlete to accomplish her goals. Crocker and Graham (1995) examined coping patterns and relationships between positive and negative affect in 235 female and male athletes. The results indicated higher levels of seeking social support for emotional reasons in females as compared to males, and males experienced higher levels of positive
affect. Women were also more likely to utilize increasing effort as a coping behavior. These results are consistent with previous studies. For example, Madden and colleagues (1989) explored coping responses in female cross-country runners and found that they use more emotional responses in reaction to injury when compared to male athletes. These studies bring attention not only to the different ways men and women experience and respond to stress, but to the different meanings and roles relationships serve in achieving competency and personal fulfillment in their sport.

**Relational Health and the Link to Stress and Coping in Women**

Researchers from the University of California Los Angeles identified a biological and behavioral pattern that distinguished the key method used by women to cope with stress. This study highlighted basic differences between the male and female gender. Taylor and colleagues (2000) found that the pattern “tend and befriend” exemplified how females of many species including humans respond to stressful situations by nurturing or “tending” to their young and by seeking social contact and support from others, referred to as “befriending” (p. 411). In response to the traditional model proposed by Hans Seyle (1956), in which humans respond to stress with the “flight or fight” behavior, Taylor and colleagues concluded that women are more likely than men to befriend in response to stress (i.e., seek social contact). According to Taylor and colleagues, biological connections to the “tend and befriend” pattern contribute to the pronounced role of social support and intimate relationships in the stress and coping process for women. However, the role of social support can have deleterious effects on the situation for certain individuals, resulting in purposeful disengagement from social networks.
Several research studies on the topic of stress and gender conclude that supportive social relationships are more pronounced among subgroups with high levels of personal resources such as income, education, and internal locus of control (Eckenrode, 1983; Lefcourt, Martin, & Saleh, 1984; Sandler & Lakey, 1982, as cited in Barnett, Biener & Baruch, 1987), while the costs of this type of support are greater for those with fewer resources (Belle, 1983; Riley & Eckenrode, 1986). Maintaining a large support network was more harmful than helpful for women with fewer material and psychological resources because they had trouble responding to the needs of the network members and because they experienced more vicarious stress for network members compared to women with higher resources (Barnett et al., 1987). Nevertheless, the results suggest that women desire to create and maintain mutually empowering relationships and respond to the needs of others in an empathic manner. The absence of such growth-fostering relationships, due to either lack of such relationships or one’s inability to reciprocate, has the potential to cause distress. “Throughout the life cycle, females show a greater propensity to mobilize social supports in times of stress” and “females are more likely than males to seek out such support, to receive such support, and to be pleased with the support they receive” (Belle, 1987, p. 261).

The desire to participate in a mutually empowering relationship and the ability to feel empathy for another appears to be consistent among women. However, the women with fewer resources felt unable to participate mutually which resulted in additional emotional pain, resulting in disengagement from the network. Female college athletes participating in a highly competitive, nationally ranked Division-I athletic institution often possess varied educational and psychological resources, strengths and experiences.
The RCT provides sport practitioners with a theoretical model that addresses the basic human desire of each athlete to experience daily positive connections with others.

**The Connection Between Relational Health and Satisfaction**

People with close relationships and friendships are more than four times as likely to feel good about themselves (Magen et al., 1996) and the quality of these relationships explains as much as 70% of personal happiness (Murray & Peacock, 1996). The more a person experiences intense feelings of zest, curiosity, love and hope, the more satisfied he or she is with life (Harvey & Pauwels, 2004; Park et al., 2004). The influence of relationships on athlete satisfaction is evident from a number of studies (Nakamura, 1996). Female athletes indicated feelings of success, enjoyment, competence and greater satisfaction with the coach when their coaches gave more information following good performances and more encouragement and corrective information following poor performances (Allen & Howe, 1998; Black & Weiss, 1992).

Nakamura (1996) found that athletes’ overall satisfaction is subsequently created through the quality of the coaching relationship. The findings from several studies indicated a significant association between the quality of the coach-athlete relationship and the athlete’s development of self-esteem and level of satisfaction in performing his or her sport (Barnett et al., 1992; Johnson, 1999). Bump (1986) found that coaches with higher accurate empathy displayed significantly better communication ability than coaches who are lower in accurate empathy. Furthermore, athlete satisfaction was positively correlated with perceptions of empathy displayed by the coach while social support provided by the coach and others was positively associated with the athletes’ satisfaction, their participation, and performance (Bump). The theoretical premise of the
RCT is consistent with these findings, which suggest that growth-fostering relationships enhance wellness and perceptions of satisfactory experiences, and are likely to contribute to the construction of the person-environment relationship (Lazarus, 1999) as a primary ingredient in the formation of stress appraisals.

**The Influence of Stress on Athlete satisfaction and Performance**

The relational meaning of stress varies greatly for each individual, across different situations and in situations across time, culture and emotional or psychological state. Similar to the transactional nature of the stress and coping process (Lazarus, 1999, 2000; Lazarus & Folkman, 1984), perceptions of stress also vary with regard to the relational meaning of the event at a specific moment in time. This perception of stress may then evolve as a result of coping strategies utilized, reappraisal, or a change in the event or environment. Therefore, it is difficult to determine the exact nature of stress and even more difficult to identify the direct consequences of stress on a person’s cognitive, emotional, and physical state. Nevertheless, sport psychology studies indicated that stress can impede optimal athletic performance (Burton, 1988; Gould et al., 1987) and their enjoyment of the overall sport exercise (as cited in Scanlon, Stein & Ravizza, 1991). Moreover, anxiety experienced by athletes was correlated with psychological adjustment (Crocker, 1992; Madden et al., 1990; Ntoumanis & Biddle, 1998), which supports the importance of coping strategies as a protective factor against the negative consequences of stress in the athletic domain (as cited in Kim & Duda, 2003).

In a study by Pensgaard and Duda (2003) optimizing emotions were related to coping effectiveness, which resulted in positive competitive results. This finding is supported (Lazarus, 1999, 2000) by the idea that positive emotions should lead to
positive outcomes. However, the exact nature of stress, emotion and coping on athlete satisfaction is unclear. Lazarus and Folkman (1984) encouraged researchers to determine the effectiveness of coping strategies in stressful situations on a short and long-term basis (Kim & Duda, 2003). Specifically, Lazarus and Folkman suggested using indices of psychological well-being or general satisfaction with the particular activity or situation (Folkman, 1992). In athletic settings, psychological well-being or satisfaction is reflective of successful adaptation to the sport environment (Hanin, 2000).

Ntoumanis and Biddle (1998) found that the effects of certain coping responses such as suppression of competing activities, seeking social support, and effort-related coping strategies significantly predicted positive affect. Coping strategies such as behavioral disengagement, venting of emotions and seeking social support were associated with negative affect (as cited in Kim & Duda, 2003). A study on coping effectiveness (Haney & Long, 1995) suggested that both engagement and disengagement coping were associated with performance and performance satisfaction. Coping effectiveness was examined on 178 female athletes over two rounds of a sport event. The goal of their research was to understand the relationship between appraisal, coping, and performance based on a transactional theory of stress and coping (Lazarus & Folkman, 1984). Coping effectiveness referred to “the pattern of relationships among self-efficacy, control, anxiety, engagement coping, disengagement coping, and performance” (Haney & Long, p. 1728). The researchers adopted a two-factor model where engagement and disengagement emerged from a hierarchical analysis of coping strategies based on the work of Tobin and colleagues (1989). This was one of few studies that focused on the relationship between coping effectiveness and both athlete satisfaction and performance. The coping measurement tool utilized in this study was also revised in order to develop a
questionnaire that would take less time to administer in the sport setting while choosing a hypothesized higher order factor structure that best represented dimensions relevant to sport-specific settings.

**Hypotheses and Research Questions**

How an individual copes is dependent on their cognitive evaluation of the situation. How coping strategies are selected and applied depends on the appraisal of key factors, such as the meaning of the situation in terms of a person’s state of well-being and coping options, perceptions of control, and personal competence (Aldwin, 1994). Relational health in females is positively correlated with feelings of self-worth, efficacy, and autonomy (Jordan, 1997c; Jordan et al., 1991). According to the RCT, college females with high levels of relational health are also more likely to have feelings of self-control, confidence, satisfactory experiences and general sense of well-being.

Relationships that are intimate and mutual facilitate emotional resiliency, coping strategies and additional social support (Genero et al., 1992; Gotlieb, 1992; Jordan, 1992; Liang et al., 2001). Social support is also associated with healthy psychological adjustment and improved functioning in community settings (Billings & Moos, 1982; Lin et al., 1979; Williams, Ware, & Donald, 1984, all as cited in Taylor & Dakof, 1987).

Theoretical and empirical connections that link relational health as a central component of psychological health and development with stress (Belle, 1982; Madden et al., 1990; Scanlon et al., 1991), coping responses (Madden et al., 1989; Taylor, 2000) and as a protective factor against depression (Arce, 2004) for college-aged women, support the hypothesis that female college athletes with the highest self-reported levels of relational health will perceive greater satisfaction across all domains of athlete satisfaction. These studies also support additional hypotheses, which purport that levels
of perceived stress are associated with relational health and athlete satisfaction. Furthermore, the findings provide an association between relational health and coping style (i.e., engagement coping, disengagement coping), particularly when a stressor has personal meaning, and an association between coping style (i.e., engagement or disengagement coping) and athlete satisfaction. Last, the research supports the possibility that relational health among mentor (athletic coach), peer (teammate), and community (athletic advisors, trainers, or support staff in general) can mediate the relationship between perceived stress and athlete satisfaction among female college athletes. For the purpose of this study, stress is measured by the athletes’ appraisal of events as beyond their control or threatening.

Consistent with the premise of the CMRT, a stronger association between relational health and the stress appraisal over relational health and coping responses can be expected. First, coping is second in importance only to appraisal (Lazarus, 1999). Appraisal is more closely tied to relational meaning of the person-environment relationship and the cognitive evaluation of an event influences a coping response, usually selected from a large repertoire of coping resources. Secondly, coping is contingent upon appraisal, and effective coping is different across situations and people at a specific moment in time. The research questions were formulated based on the hypothesis discussed above. Six main research questions pertaining to female college athletes include the following:

• What is the relationship between relational health and athlete satisfaction?
• What is the relationship between relational health and perceived stress?
• What is the relationship between relational health and coping style?
• What is the relationship between coping style and athlete satisfaction?
• What is the relationship between perceived stress and athlete satisfaction?
• Does relational health mediate the relationship between perceived stress and athlete satisfaction?
Summary

This literature review focused on numerous sources of documentation across different disciplines, which support the utilization of a theoretical synthesis as a supplemental approach to research and practice with female athletes. A relational model of psychological health for women and a transactional paradigm of stress and coping were presented in this chapter. Growth-fostering relationships within and between persons in the social network was found to be a positive influence on female college athletes in terms of their stress appraisal, coping resources, and satisfaction. A feminist response to traditional theories of human psychological development was presented, which addressed concerns of incorporating a model that is sensitive to issues of diversity. Differences found in the stress and coping process between male and female athletes were addressed with a psychological model of health unique to women. A review of a transactional theory of the stress and coping process and sport psychology research specific to the topic of relationships and stress in an athletic setting were also presented.

Theoretical support for relational health as a protective factor against depression and an association between relational health and satisfaction was demonstrated in this chapter. Furthermore, disconnection in relationships was found to be a source of psychological stress for women. Possible consequences of excessive stress and depression among female college athletes include dissatisfaction in the athletic experience and chronic psychological suffering. Within the athletic context, the review of the research further supported correlations between the coach-athlete relationship as well as social support from members within the athletic community on engagement coping and athlete satisfaction. Healthy adjustment to college and university athletics was considered to be a dynamic process of appraisals and coping influenced by the
quality of relationships with coaches, teammates, and significant others. In conclusion, incorporating a feminist perspective allows sport practitioners to more accurately represent female college athletes’ experiences in the research process. A relational perspective of psychological development for women along with a transactional theory of stress and coping has the potential to enhance the effectiveness of clinical applications and research methodologies that further examine psychological health and performance-related constructs among female college athletes.
CHAPTER 3
METHODOLOGY

Overview

The association between healthy and supportive relationships with members in
the athletic community, teammates, and coaches and the stress and coping process on
athlete satisfaction among female college athletes is unclear. This study was designed to
enlarge the current body of knowledge in the sport psychology field relating to women’s
athletic experiences by implementing a relational model centered on women’s
psychological health (RCT) enhanced by the cognitive-motivational-relational theory of
emotion (CMRT). A methodological approach to researching the stress and coping
process among female college athletes is presented. The information provided in this
chapter describes the characteristics of the participants such as demographic information
and sample size, research design, data collection, instrumentation, and normative data
analysis. This chapter concludes with a discussion of methodological limitations of the
study as well as the effort to define measures most relevant to female athletes in a sport
specific setting.

Population

The sample was drawn from 197 degree-seeking female undergraduate student
athletes who participated in one or more varsity athletic teams at a large Division I
southeastern university during the 2004-2005 academic year. A total of 103 female
college athletes participated in the study. In 2004 the total enrollment for the university
was 47,993 of which 33,694 were undergraduate students, and 18,019 (53.5%) were female. Of the undergraduate students, 23,442 (70%) were White, 4,074 (12.1 %) were Hispanic, 2,914 (8.7%) were Black, 2,318 (6.9%) were Asian, 147 (.44%) were American Indian, and 417 (1.2%) did not report their ethnicity. Of the 33,694 undergraduate students, 197 (.58%) were female college athletes participating in one of nine varsity athletic teams. Among the female college athletes representing this Division I university during the year 2004, 124 (62.94%) were White, 41 (20.81%) were Black, 10 (5.15%) were Hispanic, 5 (2.5%) were Asian, 2 (1.0%) were Pacific Islander, 1 (.51%) was American Indian, 12 (6.09%) did not report their ethnicity, and 2 (1.0 %) listed their ethnicity as other (University of Florida, 2005).

Participants ranged from first to fifth year students with 33 freshmen, 24 sophomores, 16 juniors, 22 seniors and 2 fifth year students. Eight participants did not report their ethnicity, and six participants did not report their year of participation in collegiate athletics. Of the 103 female college athletes who participated, six different ethnicities were self-reported including Black (8), White (76), American Indian (1), Hispanic (4), Asian or Pacific Islander (2), and Multiracial (4). Participants represented seven out of a total of nine varsity female sports offered at the university, and they included track and field/cross country (14), soccer (24), softball (19), golf (4), gymnastics (14), volleyball (10), and swimming and diving (18). Athletes from two sports (basketball and tennis) were not included in this study due to lack of contact and approval from the head coaches. Most teams including softball, golf, gymnastics, track and field, and swimming were in the prime of their season with NCAA, regional championships, or international competition within weeks prior to or post data collection. The other teams were engaged in daily practices and scrimmages.
Sampling Procedures

The study was conducted according to the guidelines set by the Institutional Review Board (IRB) at the university and the National Collegiate Athletic Association (NCAA). After obtaining IRB approval, head coaches of nine sports were contacted via email (Appendix A), and team meetings were established with the researcher and the female college athletes. A total of 58 questionnaires were distributed, completed, and returned before the conclusion of the meeting. Fliers (Appendix B) were also posted in the women’s locker rooms to promote interest in the study among the athletes. Seventy-four copies of the informed consent forms and questionnaires were left in the athletes’ private locker room over the course of the data collection phase, which occurred late in the spring 2005 academic term. One copy of the informed consent and questionnaire was mailed to a student athlete upon request.

Forty-five participants completed the questionnaire and returned them either via post office mail using the self-addressed, stamped envelope provided or by hand to the researcher’s mailbox. Directions were limited to the written instructions on the questionnaires to promote consistency among respondents. The researcher only accepted questionnaires that included a signed informed consent form throughout the data collection phase. One hundred thirty-three questionnaires were distributed, of which 103 were returned yielding a response rate of 77.44%. Furthermore, 52% of the entire female college student athlete population, or 103 of 197 female college athletes, participated.

Participation in this study was voluntary in nature. No compensation or credit of any kind was awarded to those who participated, and there was no penalty for not participating. Coaches and other athletic staff members were excluded from the data
collection process, and there was no disclosure of any information regarding participation to anyone. Furthermore, the data were recorded anonymously and there was no way to connect a participant with her responses. The informed consent for each participant and the completed surveys were stored separately. Personal identifiers of the participants were not recorded with exception to the ethnicity or race, year of athletic and academic participation, and sport. Demographic information and years of experience were requested for further validation and understanding of the research results. Special precautions were taken to uphold the privacy and confidentiality of all participants throughout the entire research process in addition to avoiding any perception of coercion.

**Research Questions and Hypotheses**

**Research Questions**

**Question 1.** Is athlete satisfaction predicted by student athletes’ perceived relational health with the athletic community, teammates and head coach? A standard multiple regression analysis was performed with athlete satisfaction as the dependent variable and the relational health with the athletic community, teammates, and head coach as the independent variables.

**Question 2.** Is relational health with members in the athlete community, teammates, and head coach predicted by perceived stress? A standard regression analysis was performed with perceived stress as the independent variable and the total score for all items of relational health averaged together as the dependent variable.

**Question 3.** Is coping style (i.e., engagement, disengagement coping) predicted by relational health with athletic community, teammates, and head coach? A standard multiple regression analysis was performed with engagement coping and disengagement
coping as the dependent variable and relational health with athletic community, teammate and head coach as the independent variable.

**Question 4.** Is athlete satisfaction predicted by coping style (i.e., engagement and disengagement coping)? Multiple regression analyses were performed with each style of coping as the independent variable and athlete satisfaction as the dependent variable.

**Question 5.** Is athlete satisfaction predicted by perceived stress? A standard regression analysis was performed with athlete satisfaction as the dependent variable and perceived stress as the independent variable.

**Question 6.** Does relational health with members in the athletic community, teammates, and head coach mediate the relationship between perceived stress and athlete satisfaction? A series of multiple regression analyses were performed with athlete satisfaction as the dependent variable, perceived stress as the independent variable, and the total score for all items of relational health averaged together as the mediating variable.

**Hypotheses**

Six statistical hypotheses were tested in this study. Note, $H_0$: represents “null hypothesis” and $H_a$: represents “alternative hypothesis.” The hypotheses are listed below.

1. **$H_0$:** There is not a linear relationship between Athlete Satisfaction Questionnaire (ASQ) and the Relational Health Indices (RHI) - Community (C), Teammates (T), and Head Coach (HC).

   **$H_a$:** There is a linear relationship between ASQ and RHI-C, T, HC.

2. **$H_0$:** There is not a linear relationship between RHI-C, T, HC and the Perceived Stress Scale 10-item (PSS10).

   **$H_a$:** There is a linear relationship between RHI-C, T, HC and PSS10.
3. $H_0$: There is not a linear relationship between the Coping Checklist for Sport (CCS) and RHI-C, T, HC.
$H_a$: There is a linear relationship between CCS and RHI-C, T, HC.

4. $H_0$: There is not a linear relationship between ASQ and CCS.
$H_a$: There is a linear relationship between ASQ and CCS.

5. $H_0$: There is not a linear relationship between ASQ and PSS10.
$H_a$: There is a linear relationship between ASQ and PSS10.

6. $H_0$: The relationship between perceived stress and athlete satisfaction is not mediated by relational health.
$H_a$: The relationship between perceived stress and athlete satisfaction is mediated by relational health.

**Design and Data Analysis**

The measurement scales and theoretical range of possible values are given here. The RHI-P (T), RHI-M (HC), and RHI-C scores were derived as the average of 12, 11, and 14, 1-5 likert-type questions, respectively. Thus, each RHI score was measured on a continuous scale and had a theoretical range of 1 to 5. A total of 102 participants completed all three subscales on the RHI. The PSS10 had 10 items on a continuous scale with likert-type questions with a theoretical range from 0-5. Unlike all other test instruments utilized in this study, the PSS10 score was derived from a summation of the responses. A total of 102 participants completed the PSS10. There were two types of coping categories or styles (engagement and disengagement) and any given athlete might use each style to varying degrees. Thus, there was one score for each coping style. The scores were derived by averaging 11 4-point likert-type questions for the first category and 7 4-point likert-type questions for the second category. Thus, the coping style variables were measured on a continuum, and they had a theoretical range of 0 to 3.
A total of 101 participants completed the subscales for each coping style. The Athlete Satisfaction Questionnaire (ASQ) covered 15 domains. The scores were derived by averaging 3 or more 7-point likert type questions. A total score of athlete satisfaction was derived from averaging each of the 56 items across all 15 domains. A total of 94 participants completed all 15 subscales for a total score on the ASQ.

A cross-sectional observational study design was utilized. All statistical analyses were performed using the Statistical Package for the Social Sciences (SPSS 11.0). The study sample is described using measures of central tendency (mean and median) and dispersion (standard deviation and range) for continuous/ordinal scaled variables and frequency and percent for categorical scaled variables. All of the analyses were tested with two-sided alpha level of .05. For hypotheses 1, 3, and 4, multiple linear regression analyses were performed to determine if there was a linear association between the dependent and independent variables. For hypothesis 5, simple linear regression was used to determine whether an association existed between stress appraisal and athlete satisfaction. For hypothesis 6, both simple and multiple regression analyses were performed to test for mediation.

Sample Size Justification

According to Cohen (1992), small, medium and large effect sizes for $r^2$ are .01, .09, and .25, respectively. Assuming the correlation between the dependent variable and the set of control variables is .1 (a small effect size), a sample size of 100 achieves 80% power to detect an $r^2$ of .089 (a medium effect size) using an F-Test with a significance level $p < .05$. Assuming the correlation between the dependent variable and the set of control variables is .3 (a medium effect size), a sample size of 100 achieves 80% power to detect an $r^2$ of .082 (a small to medium effect size) using an F-test with a significance level $p < .05$. 
level $p < .05$. Assuming the correlation between the dependent variable and the set of control variables is .5 (a large effect size), a sample size of 100 achieves 80% power to detect an $r^2$ of .068 (a small to medium effect size) using an F-test with a significance level $p < .05$. In summary, regardless of whether there is a weak, medium, or strong correlation between the dependent variable and the set of control variables, a sample size of 100 produces 80% power at the $p < .05$ level of significance to detect a small to medium effect size. Therefore, a sample size of 100 was appropriate for this study.

**Data Collection Process**

Participants were asked to complete the Relational Health Indices (RHI; Appendix C) and indicate their level of connection with their community (athletic support staff), peers (teammates), and head coach (mentor) as a measure of relational health. Permission was obtained from the first author of the Relational Health Indices, Belle Liang (Liang, Tracy, Taylor, Williams, et al., 2002) via personal communication to substitute the terms community with athletic community, peer with teammate and mentor with head coach even though the head coach may or may not serve in a mentor role as defined by the RCT. However, these substitutions were made for two specific reasons: (a) to better assess the level of relational health of the persons with whom the female college athletes work most intimately on a daily basis, and (b) how their relationship with these persons individually and collectively related to their levels of stress in the previous month, their coping responses and athlete satisfaction. Content, order, and scoring of questions were unchanged. Internal reliability for the instrument is reported in the results section following this chapter.

A 10-item stress appraisal instrument followed the RHI to measure participants’ cognitive evaluations to determine the degree to which individuals feel that the events in
their life are “unpredictable, uncontrollable, and overloading” (Cohen, Kamarck, & Mermelstein, 1983, p. 387). The participants were asked how often they felt or thought a certain way in response to events that occurred in the previous month. Next, the participants were asked to respond to an 18-item coping assessment. The written directions asked the athletes to think of a stressful situation specific to sport such as an athletic event, competition, or practice, or anything within their athletic experience relating to their athletic performance in the last month. The participants responded using a likert-type scale that indicated the extent to which they utilized each coping strategy from “does not apply or not used at all” to “used a great deal.” Last, the Athlete Satisfaction Questionnaire (ASQ; Chelladurai & Riemer, 1997) was administered to all of the participants to examine how well their expectations of their athletic experience had been met from a personal and performance perspective. The properties of all instruments follow.

**Instruments**

**Relational Health Indices**

The RHI was developed as part of the Stone’s Center Relational Model developmental psychology framework for girls’ and women (Jordan et al., 1991; Miller & Stiver, 1997). The Relational Health Indices (RHI; Liang, Tracy, Taylor, Williams, et al., 2002) measures the quality and content of women’s relationships. Three scales assess growth-fostering connections with peers, mentors, and communities to which the participant belongs. Growth-fostering connections are characterized by empowerment and zest, empathy and engagement, and authenticity, in each scale. The factor analysis confirmed the three subscale structure.
The RHI is a 37-item self-report instrument that includes a 12-item Peer Relationship Scale (RHI-P), 11-item Mentor Relationship Scale (RHI-M) and a 14-item Community Relationship Scale (RHI-C). In this study (Liang, Tracy, Taylor, Williams, et al., 2002) the psychometric properties of the RHI were examined and norms established on 450 students at a women’s liberal arts college. Ethnic distribution of the sample was 58% White, 28% Asians/Pacific Islander, 4.3% Black, 4.3% Hispanic, 1% Native American, and 4% other backgrounds (Liang, Tracy, Taylor, Williams, et al.). Participants were asked to rate their responses according to a 5-point Likert scale with 1 = never and 5 = always. The mean composite score on each scale corresponds to the degree of relational health in the context of peer, mentor and community relationships. Therefore, high composite scores on each scale indicate high levels of relational health. The Cronbach’s alpha coefficients for internal consistency of the RHI are .85, $N = 448$ for the peer scale, .86 for the mentor scale, $N = 303$ and .90, $N = 445$ for the community scale (Liang, Tracy, Taylor, Williams, et al.). In the present study, this test instrument has a Cronbach’s alpha for peer, mentor, and community scales of .82 ($N = 575$), .93 ($N = 563$) and .88 ($N = 565$), respectively (Liang, Tracy, Taylor, Williams, et al.).

To test convergent validity, Liang and colleagues (Liang, Tracy, Taylor, Williams, et al., 2002) identified two preexisting validated measures with similar constructs to the RHI-P: the Mutual Psychological Development questionnaire (MPDQ; Genero et al., 1992) and Quality of Relationships questionnaire (QRI; Pierce, Sarason, Sarason, Solky-Butzel, & Nagle, 1997). The MPDQ is a 22-item measure that assesses dyadic relationships such as close friendships and important mentoring relationships. The QRI questionnaire is designed to measure three aspects of dyadic relationships: support, death, and conflict (Liang, Tracy, Taylor, Williams, et al.). Liang and
colleagues also identified a 4-item friend support subscale of the Multidimensional Scale of Perceived Support (Zimet, Dahlem, Zimet, & Farley, 1988) to measure perceived social support from friends as a third scale for comparison measures.

Convergent validity was established by the correlation of the RHI-P and the MPDQ ($r = .69$); the RHI-P and the QRI on the Support and Depth of Relationship Scale, $r = .61, .64$, respectively; and the RHI-P and the friend support subscale of the Multidimensional Scale of Perceived Support, $r = .50$. Convergent validity of the RHI-M scale was determined by the correlation of the RHI-M and the MPDQ ($r = .68$), the RHI-M and the QRI support scale ($r = .58$), and the RHI-M and the QRI Depth of Relationship Scale ($r = .51$). Both MPQD and the QRI assess dyadic peer and mentor relationships; however, no other scales exist to measure community health.

Constructs of self-esteem, loneliness, depression, and stress were used to examine concurrent validity (Liang, Tracy, Taylor, Williams, et al., 2002). Rosenberg’s Self-Esteem Scale (1965) assessed individuals’ self-perceptions, and loneliness was assessed through the University of California, Los Angeles, Loneliness Scale (RULS; Russell, Peplau, & Cutrona, 1980). The RHI-P, M, and C relationship scales were all negatively correlated ($r = -.35, -.14, -.47$) with the RULS. Depression was assessed with the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977), and the respondent’s levels of stress were assessed using the Perceived Stress Scale (PS; Cohen et al., 1983). The RHI-C scale was negatively correlated ($r = -.32$) with the PS and the CES-D ($r = -.39$).

**The Stress Appraisal**

An individual’s perception of an event as a potential stressor is more relevant than the objective event itself (Cohen et al., 1983, Cohen & Williamson, 1987; Lazarus,
A “Perceived Stress Scale” (Cohen et al., 1983) measured participants’ cognitive evaluations or appraisals of events to determine the degree to which individuals feel that the events are “unpredictable, uncontrollable, and overloading” (Cohen & Williamson, 1987, p. 387). The PSS is a global measure of perceived stress with 10 items that indicate ongoing stress, anticipation of future stressors, and stress an individual is experiencing vicariously through a friend or family member. According to Cohen and colleagues (1983), these three issues are consistently mentioned as central components of the stress and coping process (Averill, 1973; Cohen, 1978; Glass & Singer, 1972; Lazarus, 1966, 1977, 1999; Seligman, 1975). Unlike previous measurement instruments, the PSS focuses on stressors in the previous month versus 6 to 12 months, and is intended to be predictive of health outcomes in the next 1-2 months (Cohen & Williamson, 1987). The authors of the PSS suggested that appraisal of perceived stress can also be an outcome variable (i.e., measurement of appraisal by function of objective stressful events, coping processes, and personality factors; Cohen et al., 1983).

The PSS (Cohen et al., 1983) was originally a 14-item measurement tested on three samples, two on college students and one on a more heterogeneous community group, to determine the concurrent and predictive validities, as well as internal and test-retest validity. The PSS is designed for use with community samples of individuals having attained at least a junior high school education. Participants were asked to rate their responses according to a 5-point Likert-type scale with 0 = “never” and 4 = “very often.” In the college student samples, 332 college freshmen living in dorms at the University of Oregon (121 male and 209 female, two with no gender identified) participated in the study. In the second sample, 114 students (53 females, 60 males and one with gender not identified) taking an introductory personality psychology class
received class credit for their participation. The mean age in sample one was 19.01 with a standard deviation of 2.75, and in sample two the mean age was 20.75 with a standard deviation of 4.41. The third sample consisted of 27 males and 37 females participating in a smoking-cessation program run by the University of Oregon and reported smoking a baseline average of 25.6 cigarettes a day. The mean age was 38.4 years and only three participants in the group attended college.

In the first and second sample of college students, the PSS (Cohen et al., 1983), a modified version of the College Student Life-Event Scale (CSLES; Levine & Perkins, 1980), the Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977), the Cohen-Hoberman Inventory of Physical Symptoms (CHIPS; Cohen & Hoberman; 1983) and the Social Avoidance and Distress Scale (SADS; Watson & Friend, 1969) were administered. In the third sample, the smoking cessation group, participants completed a life-event scale consisting of 71 normatively negative events chosen from the Unpleasant Events Schedule (Lewinsohn & Talkington, 1979) in addition to the CHIPS and the PSS measurement tools. Mean scores were 23.18 and 23.67 in the college student samples, and 25 for the smoking-cessation example with standard deviations of 7.31, 7.79 and 8, respectively. Mean PSS scores for the females were consistently higher than the males, with 23.57 and 25.71 in the student samples and 25.60 in the community sample compared to the males with averages of 22.38, 21.73 and 24, respectively. However, differences between males and females as reported by z scores for the purpose of validity criteria were not statistically significant. Age was unrelated to PSS in all three samples. Coefficient reliability for the PSS was .84, .85 and .86 in each of the three samples. Test-retest for the PSS, which was administered again at 2 days and
6 weeks, was .85. The PSS and the CES-D had a high correlation with .16 and .17 (sample I and II) with p < .001 for PSS and physical symptomatology.

Cohen and Williamson (1987) provided new data on the PSS based on a probability sample of the United States. The national area-probability sample was developed based on Bureau of Census information and stratification was done according to geographic regions and size of residential community. According to Cohen and Williamson, all data used in obtaining the psychometric properties of the PSS10 for this study (Appendix D) were generated by Louis Harris and Associates, Incorporated (Office of Disease Prevention and Health Promotion, 1983, as cited in Cohen & Williamson). The PSS was administered over the phone to 960 male and 1,427 female residents, 18 years of age and older, with the mean age of 42.80 and standard deviation of 17.20. In addition to the 14-item PSS, the respondents were asked four individual questions to assess the level of experienced stress, a life-events scale, and a number of questions regarding work-related stress. After the data analysis was completed, the 14-item assessment was revised to a superior 10-item instrument with better psychometric properties including total explained variance and internal reliability. The PSS10 is identical to the PSS14 except for the four scales (4, 5, 12 and 13) that were deleted based on relatively low factor loadings.

**Factor Analysis, Reliability Estimates, and Inter-correlations**

All 10 items on the PSS10 loaded positively on the first factor at .42 or above. Two factors had eigenvalues of 3.4 and 1.4, respectively; however, deletion of the four items resulted in a slight improvement in both the total explained variance (48.9% for both factors combined, Factor 1 = 34.4% and Factor 2 = 14.5%, and internal reliability with a .78 (Cohen et al., 1983 as cited in Cohen & Williamson, 1987, p. 45). Mean
scores for the PSS10 were 13.02 with a standard deviation of 6.35. The data analysis indicated that females reported higher levels of stress than males with a one-way ANOVA. All differences were tested using $p < .0001$ level or beyond for significance. Participants who identified themselves as “white” had lower PSS scores than did those who identified as Black, Hispanic, or other minority. To test for construct validity, researchers compared the PSS10 against other stress measures.

Cohen and colleagues (1983) found that the PSS10 scores were moderately correlated with the number of events participants’ indicated had a negative impact on their life ($r = -.27, p < .001$), including adjustment to the demands of college life in the college student sample (Cohen & Williamson, 1987). PSS10 scores were correlated with number of life events and how much stress the participant experienced during an average week ($r = .39, p < .0001$) “compared to a year ago ($r = .26, p < .0001$)” (Cohen & Williamson, 1987, p. 54). PSS10 scores also moderately correlated with self-reported health ($r = .22, p < .0001$), utilization of health services ($r = .22, p < .0001$), and serious illnesses ($r = .15, p < .0001$). For example, individual questions regarding health was correlated with reports of stress, and scores on the Health Services Utilization Scale were positively correlated with PSS scores. A comparison between PSS10 scores and life satisfaction indicated that perceived stress is inversely related to reports of satisfaction with self, job and life in general. Specifically, the PSS scores were correlated with reports of increased dissatisfaction ($r = 0.47, p < .0001$), although this was interpreted with caution because both the PSS and the instrument used in this particular study to assess satisfaction may have studied the same construct (Cohen & Williamson, 1987). A one-way ANOVA revealed that participants who reported considering seeking help in the past year for personal or emotional problems regardless of whether they actually sought
help, had higher PSS scores than did those who had not thought about getting help ($p < .0001$).

In summary, the PSS10 does an adequate job of measuring perceived stress and “with the possible exception of life satisfaction, and minor physical symptoms, there is little or no overlap between constructs measured by the PSS10 and what is assessed by the outcome scales in this study” (Cohen et al., 1983, as cited in Cohen & Williamson, 1987, p. 64). The work is cross-sectional and therefore cannot account for causality; however, the authors (Cohen et al., 1983) found that the PSS10 measures what it was designed to measure (i.e., the perceived degree to which environmental demands exceed abilities to cope). The PSS10 provides researchers with a rich reference base for studying perceived stress across gender, SES, age groups, race, and other demographic characteristics (Cohen & Williams, 1987).

Assessment of Coping Strategies

Haney (2004) conducted a pilot study with 106 female athletes to test and revise a 50-item Ways of Coping Checklist (WCC; Folkman et al., 1986). The WCC originally consisted of 66 items (Folkman & Lazarus, 1988) and subsequent research on the WCC (Folkman et al., 1986) found eight factors with internal consistency: confrontive coping ($\alpha = .70$), distancing ($\alpha = 0.61$), self-controlling ($\alpha = .70$), seeking social support ($\alpha = .76$), accepting responsibility ($\alpha = .66$), escape-avoidance ($\alpha = .72$), planful problem solving ($\alpha = .68$), and positive reappraisal ($\alpha = .79$). In previous research on 178 female athletes, Haney and Long (1995) revised the WCC as a coping instrument for their study. Out of 50 items, 46 were adopted directly from the WCC and four additional items were added from the “suppression of competing activities scale” developed by Carver, Scheier, and Weintraub (1989) based on the relevance of the items to sport. Two hypothesized
factors, engagement and disengagement coping (Tobin et al., 1989), were chosen based on their relevancy to a sport specific situation (Haney & Long). Disengagement coping was defined as “focusing negatively on self and avoiding the task” and engagement coping was defined as “engaging in active coping to manage the situation” (Haney & Long, p. 1732). Progressive steps were taken to modify the instrument several times, which resulted in the 18-item inventory as the final version of the coping checklist. Further reduction of items did not improve the model. The final version of the checklist, Coping Checklist for Sport (CCS; Haney; Haney & Long; Appendix E) was then measured on male and female athletes ($N = 197$, $N = 178$, $N = 102$ and $N = 104$).

Reliability analysis using Cronbach’s alpha indicated moderate internal consistency for engagement (.82) and disengagement (.75). Scores ranged from 0 to 21 for disengagement coping (seven items) and from 0 to 33 for engagement coping (11 items). A confirmatory factor analysis using LISREL VI (Joreskog & Sorbom, 1984, as cited in Haney & Long) was performed on each sample to examine the factorial validity of engagement and disengagement coping.

Tobin and colleagues (1989) utilized Wherry’s hierarchical rotation procedure to conduct a factor-analysis (Wherry, 1959, 1984) proven useful in other complex constructs such as cognitive abilities (Thompson, 1951; Wallbrown, Blaha, & Wherry, 1973), work performance (Roach & Wherry, 1970) and factor analysis (Gorsuch, 1983). The hierarchical coping model that emerged included the following coping strategies:

- Problem solving and cognitive restructuring (under the secondary factor problem engagement).
- Expression of emotions and social support (under the secondary factor of emotion engagement).
• Problem avoidance and wishful thinking (under the secondary factor of problem disengagement).

• Self-criticism and social withdrawal (under the secondary factor of emotion disengagement).

The two secondary engagement factors fell under the broader tertiary factor of engagement and the two disengagement secondary factors fell under the broader tertiary factor of disengagement (Tobin et al.).

According to Haney (2004), the CCS tested the hypothesized higher order factor structure (engagement, disengagement) for goodness-of-fit index (GFI = .84) and the residual mean root square (RMRQ = .08). Coping items and factor loadings were consistent across different sport competitions and for men and women. The GFI results indicate that each model is measured as a good fit across all samples. The factor loadings for the coping strategies ranged from .35 (“I changed or grew as a person in a good way”) to .74 (“I put aside other activities in order to concentrate on this”). All but two items loaded above .40 and only one residual was > 0.20 (Haney, 2004).

Tobin and colleagues (1989) indicated that studies with limited numbers of extracted factors to two or three general dimensions commonly find that the factors resemble engagement and disengagement (Maddi, 1986; Parkes, 1986) and the approach and avoidance constructs (Mullen & Suls, 1982; Roth & Cohen, 1986; Skinner, Edge, Altman, & Sherwood, 2003; Suls & Fletcher, 1985). Furthermore, Tobin and colleagues (1989) stated that their findings were consistent with correlations among primary dimensions of coping in other studies (Bouffard & Crocker, 1992; Crocker, 1992; Crocker & Graham, 1995; Folkman & Lazarus, 1980, 1985; Madden et al, 1989, 1990).

**Athlete Satisfaction Questionnaire**

Chelladurai and Riemer (1997) defined “athlete satisfaction” as “a positive affective state resulting from a complex evaluation of the structures, processes, and
outcomes associated with the athletic experience” (p. 135), or the extent to which one’s personal expectations are met (Riemer & Chelladurai, 1998). According to Chelladurai (1984, 1987), athletes’ satisfaction affects performance and ultimately the effectiveness of the team or sport in which they participate. Furthermore, athlete satisfaction is considered a predicted outcome of a coach’s efficacy (Feltz et al., 1996) and was included as both an antecedent and outcome of cohesion in Carron’s (1982) model of cohesion. It also correlated with motivation for participation in sport (Carron & Chelladurai, 1981, as cited in Riemer & Chelladurai, 1998). Chelladurai and Riemer (1997) selected three criteria to explore and classify facets of athlete satisfaction and they include outcome versus processes, personal team effects, and task versus social aspects. With a proposed list of categories and different facets of athlete satisfaction ranging from absolute performance to loyalty support, the authors developed a psychometrically sound measurement tool.

The development of the Athlete Satisfaction Questionnaire (ASQ; Riemer & Chelladurai, 1998) spanned three phases, which included construction of the initial questionnaire, scale refinement and final estimation of validity and reliability (Riemer & Chelladurai). The final result is a 15-dimension, 56-item multidimensional scale (Appendix F) designed to measure an athlete’s satisfaction with his or her athletic experience (Riemer & Chelladurai). The subscales examine individual and team performance, leadership, the individual, the team, and the athletic organization. Data were obtained from the responses of 614 Canadian university athletes (Riemer & Chelladurai). Participants are asked to respond to each item on a 7-point Likert-type scale (1 = not at all satisfied to 7 = extremely satisfied, with 4 = moderately satisfied). To test for construct validity, a confirmatory factor analysis showed that the ratio of chi-
square to the degrees of freedom was below 2, a conservative figure for a good model fit (Riemer & Chelladurai). Furthermore, the ASQ (Riemer & Chelladurai) passed the good model fit test as measured by the Tucker-Lewis Index, Bollen’s (1988, as cited in Riemer & Chelladurai) fit index, and the Root Mean Square Error of Approximation with scores of .93, .94 and .04; 90% C.I. = .04 -.05, respectively (Riemer & Chelladurai).

High internal consistency confirmed the reliability of the questionnaire with coefficients (Cronbach’s alpha) that ranged from .78 to .95 with a mean of .88. The coefficients were higher than .85 in 12 of the 15 subscales, higher than .80 in one, and .78, .79 in the remaining two. The means for the 15 subscales ranged from 3.92 to 5.56 on a 7-point scale, and the standard deviations ranged from .84 to 1.67. Only 4 of the 105 correlations exceeded the value of .6, and another 8 exceeded the value of .50. Shared variance was much lower than 50% in almost all cases. According to Riemer and Chelladurai (1998), all of the correlations are in the predicted direction and significant ($p < .05$) and many of the correlations are greater than positive and negative .30. The Negative Affectivity Scale (Levin & Stokes, 1989) was used to assess criterion validity and scale scores ranged from 22 to 124 with a mean of 65.62, and a standard deviation of 17.12. Internal consistency (Cronbach’s alpha) of .87 is consistent with previously reported figures and the results relating to commitment to team and negative affectivity lend support to the predictive validity of the ASQ (1998).

The ASQ (Riemer & Chelladurai, 1998) was designed for use with intercollegiate team sport athletes and is appropriate to use in other team sport settings where the level of task dependence is relatively high. Due to the authors’ (Riemer & Chelladurai) effort to include several dimensions of athlete satisfaction that do not strictly pertain to a specific sport setting, the ASQ may also be useful for evaluating satisfaction for athletes
participating in an individual sport where the athlete performance is conducted by a single member as opposed to a team sport which requires coordinated efforts between athletes. The authors of the ASQ also support using athlete satisfaction as an outcome variable in various sport related contexts such as leadership, (Chelladurai, 1978; Chelladurai, 1981, 1984, 1987; Chelladurai, Imamura, Yamaguchi, Oinuma, & Miyauchi, 1988) coach and player goal orientation, and motivational climate (Tannen, 1990). Although some may question the applicability of certain subscales such as the Academic Support Services and Budget (Riemer & Chelladurai) for some intercollegiate teams, the Division I university represented in this study is known for the prominent academic support that is instrumental in the facilitation of the student athletes’ academic achievement. This university also ranks among the best in the nation with regard to appropriation of funds and the quality of facilities and support services provided to the female college athletes.

Limitations of the Measurement Instruments and Support for the Methodology

Potential limitations in this methodology include modifications made to the RHI regarding the use of a more narrow definition of peer to teammate, mentor to coach and community to those members in the athletic community. However, teammate, coach and athletic community fit within the definitions provided by the RCT and represent significant relationships in the lives of college student athletes. The rationale for doing this is to facilitate the need to accurately reflect participants’ experiences within the athletic realm. The purpose of the research is to examine the influence of relationships with coaches, teammates, and athletic members on an athlete’s ability to cope effectively with sport related stress as well as athlete satisfaction. Therefore, limiting the
participants’ choices to relationships within this context is supported by the research purpose and objective.

Although the RHI (Liang, Tracy, Taylor, Williams, et al., 2002) is a more recent addition to the current collection of measurement instruments, researchers across disciplines used relational health in women to study various psychological constructs. To date, at least six studies using the RHI exist and they include studies published by Peikert (2003), Mears (2002), Walsh (2001), Goldman (2001), Sutherin (2002), and Arce (2004). Arce examined the relationship between relational health and depression in a racially diverse sample of college women. Results from her study indicated a significant negative association among depressive symptoms and peer, mentor and community relational health in college women (Arce). A recent pilot study was conducted, which examined the relationship between relational health in female college athletes using the RHI and athlete satisfaction with the Athlete Satisfaction Questionnaire (ASQ; Riemer & Chelladurai, 1998). In this study, a significant correlation between athlete satisfaction and relational health of athletes’ with regard to their coaches, teammates and athletic community \( r = .22 \) was found, which suggested a connection between the quality of the relationships shared and athlete satisfaction.

Although these results have not been recognized through a peer-reviewed journal, the initial report provided the incentive to further examine this likely possibility that has been theoretically supported by the RCT and other relational theorists. In addition to the need to further examine the nature of the correlation between relational health and athlete satisfaction, the intent behind this study was to expand the current body of sport psychology literature and practice by examining relational health as a possible mediator of perceived stress and athlete satisfaction. The study conducted to validate the PSS also
found a connection with satisfaction (Harris, 1983, as cited in Cohen & Williamson, 1987). Respondents’ information obtained by Harris fell into six major categories including life satisfaction and help seeking behaviors. Therefore, a theoretical connection with athlete satisfaction, perceived stress, and relational health can be made.

One possible limitation of the PSS (Cohen et al., 1983) as a global perception of stress is that it was primarily used in studies where stress was studied as a function of illness or as a pathogenic agent. However, subsequent studies and reports supported the use of the PSS in a variety of functions (Cohen & Williamson, 1987). The PSS is sensitive to the nonoccurrence of events as well as to ongoing circumstances and is flexible as a global measurement of stress. It also has the ability to measure stress within specific situations, including future stress and vicarious stress, and the stress resulting from the loss of a loved one. Cohen and Williamson stated that what the PSS “actually measure[s] depends to a great extent on how one conceptualizes stress and disorder” and “it is reasonable to argue that the PSS measures what it was designed to assess—the perceived degree to which environmental demands exceed abilities to cope” (p. 37). The PSS was developed based on the transactional nature of stress and coping as illustrated by the CMRT. While the PSS emerged from this theory (Lazarus, 1999, 2000; Folkman & Lazarus, 1980, 1985, 1988) the CMRT and the PSS differ in regard to the importance of situational versus dispositional appraisal.

The CMRT illustrated how the stress appraisal and coping response are inextricably tied together in a recursive nature. Nevertheless, Lazarus (1999) maintained the importance of coping as a separate construct. In terms of appraisal, Folkman and Lazarus (1980, 1985; Folkman et al., 1986; Park & Folkman, 1997) favored situational over global appraisal as part of a dynamic process where shifts in relational meaning
occur throughout a stressful response. However, the perspective on appraisal demands a more complex understanding of the stress and coping process. According to Park and Folkman, “global meaning refers to concepts of general meaning, including beliefs and goals, and situational meaning refers to the interpretation of people’s global meaning in the context of specific events and occurrences” (p. 132). Park and Folkman defined “meaning-making” to include the “eventual integration of situational meaning with global meaning through cognitive reappraisals of both the appraised meaning of the situation and global beliefs and goals” (p. 132). Although the measure used to appraise stress was a global measure, it focused on stressful events that occurred within the last month and encouraged the participants to think of recent situations and the meaning of those events. Furthermore, support exists for the potential to consider both situational and dispositional coping as a collective force on the stress and coping process (Park & Folkman), and therefore the situational nature of the CCS (Haney, 2004) complimented the measurement of global appraisal within specific situations well. The CCS assessed how the participants responded to situations in sport and both the PSS and CCS shared the theoretical tenets of the CMRT.

The CCS has been criticized primarily for two reasons: (a) failing to include a broader, more accurate view of coping and (b) lack of strong empirical support. Scholars have found fault with the psychometric properties and argue that the validity is not strong enough for a 2-factor model. Specifically, the mean values on the engagement scale in the 1995 study (Haney & Long, 1995) were .60 with a standard deviation of .50 on the 7-item (0-3) scale. Thus, there was little variability in the disengagement scale (Crocker et al., 1988). Another point Crocker et al. (1988) made was that the items on the scale may not be general enough for the broader higher order categories of disengagement and
engagement. However, Haney and Long administered the CCS directly after two rounds of competition and asked the participants to base their responses on those performances. In this study, the time frame of 1 month was adopted, which showed improvement in the results.

Secondly, the appropriateness of using higher order categories does not reflect the dynamic movement between appraisal and utilization of coping strategies in different situations and times. “Such a view suggests that the development of a coping style would at best be counterproductive because it locks a person into one mode of responding rather than allowing the person the freedom and flexibility to change responses with changing circumstances” (Carver, Scheier & Weintraub, 1989, p. 270). While this is a potential weakness of the study, the CCS was employed for several reasons including the similarity to the coping assessment originally developed by Folkman and Lazarus (1988). Moreover, two additional considerations were operative. First, the higher order factor structure presented by the CCS was more relevant to sport and coping in sport situations. Second, the CCS reduced participant burden by shortening the length of the coping measurement. Furthermore, the CCS established norms and assessed higher order coping strategies specifically on female college athletes. Therefore, the CCS is arguably a better instrument to use in this study compared to Folkman and Lazarus’s scale, which categorized ways of coping into problem-focused coping and emotion-focused coping.

A compelling critique of the problem-focused and emotion-focused coping categories is that it is too simple (Carver et al., 1989; Crocker & Graham, 1995; Skinner, Edge, Altman, & Sherwood, 2003). In a comprehensive analysis of over 100 coping assessments, Skinner et al. stated that the problem and emotion focused coping categories “are not conceptually clear, mutually exclusive or exhaustive” as most ways of coping
can serve both functions and thus could fit into both categories (p. 227). Furthermore, The Ways of Coping Checklist (WCC; Folkman & Lazarus, 1980; 1985) form more than two factors. While some ways of coping can fall into either category, other strategies are excluded. Social support seeking is an example of a coping strategy that is focused neither on problem solving nor emotion but rather on other people. Carver and colleagues (1989) suggested that while problem focused strategies are highly correlated and serve to facilitate engagement, some emotion-focused strategies are not correlated, serve different functions, and some facilitate engagement while others do not (Tobin et al., 1989). As a result of this, women may be seen as prone to utilization of ineffective coping strategies. Therefore the CCS was employed as an alternative measure that may more accurately represent effective ways of coping for female college athletes.
CHAPTER 4
RESULTS

The purpose of this study was to examine the relationship between relational health, the stress and coping process, and athlete satisfaction among female college athletes. Specifically, this study focused upon how female college student athletes’ relationships with their coaches, teammates, and members in the athletic community individually and collectively predicted their cognitive evaluation of stress through a stress appraisal, coping strategies, and ultimately levels of satisfaction in sport. In this chapter, the results of the study are presented in three sections including (a) a description of the study, (b) data analyses and results, under which research questions and hypotheses are discussed, and (c) a summary of the research results.

Description of the Study

The sample was drawn from 197 degree-seeking female undergraduate student athletes who participated on one or more varsity athletic teams at a large southeastern university and Division I athletic institution during the 2004-2005 academic year. A total of 103 female college student athletes across seven different sports participated in the study. Participants ranged from first year to fifth year students with 33 freshman, 24 sophomore students, 16 juniors, 22 seniors, and 2 fifth year students. Six participants did not report their year of participation in collegiate athletics. Of the 103 student athletes that participated, six different ethnicities were self-reported.

The respondents completed four different instruments. Scores were averaged on three of the four instruments to produce a total score on that scale for each respondent.
They include the Relational Health Indices (RHI; Liang, Tracy, Taylor, Williams, et al., 2002), the Coping Checklist for Sport (CCS; Haney; 2004, Haney & Long, 1995) and the Athlete satisfaction Questionnaire (Riemer & Chelladurai, 1998). For the Perceived Stress Scale (PSS10; Cohen et al., 1983), the scores were summed across items for a total score.

Cronbach’s alpha for the RHI on the Community, Teammate and Head Coach subscales were .86, .95, and .95, respectively. Cronbach’s alpha for the PSS10, the Engagement Coping Subscale of the CSS and the Disengagement coping subscale of the CCS were .83, .80, and .68, respectively. The Cronbach’s alpha for the ASQ across all items was .96. Table 4-1 below represents the descriptive measures including means and standard deviations for all participants on each scale.

<table>
<thead>
<tr>
<th>Subscale</th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relational health (community)</td>
<td>102</td>
<td>3.38</td>
<td>.56</td>
</tr>
<tr>
<td>Relational health (teammate)</td>
<td>102</td>
<td>3.93</td>
<td>.72</td>
</tr>
<tr>
<td>Relational health (head coach)</td>
<td>102</td>
<td>2.80</td>
<td>1.00</td>
</tr>
<tr>
<td>Athlete satisfaction (total)</td>
<td>94</td>
<td>4.91</td>
<td>.90</td>
</tr>
<tr>
<td>Engagement coping</td>
<td>101</td>
<td>2.12</td>
<td>.49</td>
</tr>
<tr>
<td>Disengagement coping</td>
<td>101</td>
<td>1.47</td>
<td>.61</td>
</tr>
<tr>
<td>Stress appraisal(^a)</td>
<td>102</td>
<td>22.82</td>
<td>3.75</td>
</tr>
</tbody>
</table>

\(^a\)The stress appraisal score is a total of all items. All other subscale means are averaged across items.

**Data Analyses and Results**

For the purpose of this study, the probability level for the rejection of a hypothesis was \( p = .05 \) for all tests. All hypotheses were analyzed with standard simple or multiple regression equations using SPSS 11.0 (Green, Salkind, & Akey, 2000).

**Question 1**

Is athlete satisfaction predicted by perceived relational health with community, teammates, and head coach? The null hypothesis stated that there is no relationship
between relational health with the community, teammates, and head coach and athlete satisfaction among female college athletes. A standard multiple regression analysis was performed with athlete satisfaction as the dependent variable and relational health with community, teammate and head coach as independent variables. All three subscales (RHI-Community, Teammate, and Head Coach) were entered into the regression equation as independent variables with the total score for the ASQ averaged across all 56 items, as the dependent variable.

The results revealed a significant relationship in the direction as expected (i.e., as relational health increased, reports of athlete satisfaction increased). Therefore the null hypothesis was rejected. Regression analysis revealed that the model was significant, $F (3, 90) = 32.56, p < .001$. The $R^2$ for the model was .52, and adjusted $R^2$ was .50, which indicated that relational health accounted for 50% of the variance in athlete satisfaction. Table 4-2 displays the unstandardized regression coefficient (B), standard error (SE), standardized regression coefficients ($\beta$), and other relevant information for each variable.

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE</th>
<th>$\beta$</th>
<th>$t$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community health</td>
<td>.51</td>
<td>.18</td>
<td>.33</td>
<td>2.84</td>
<td>.006*</td>
</tr>
<tr>
<td>Teammate health</td>
<td>.12</td>
<td>.13</td>
<td>.10</td>
<td>.92</td>
<td>.359</td>
</tr>
<tr>
<td>Head coach health</td>
<td>.39</td>
<td>.07</td>
<td>.44</td>
<td>5.33</td>
<td>&lt;.001**</td>
</tr>
</tbody>
</table>

* $p < .05$
** $p < .001$

$N = 94$

**Question 2**

Is perceived relational health predicted by perceived stress? The null hypotheses stated that there is no relationship between relational health and perceived stress (i.e., stress appraisal). A standard regression analysis was performed with perceived stress as the independent variable and total relational health as the dependent variable. The results
indicated that there was a significant relationship between perceived stress and total relational health, and therefore the null hypothesis was rejected. A negative association revealed that as perceived stress increased, total relational health decreased. The overall model was significant, \( F (1, 99) = 14.98, p < .001 \). The \( R^2 \) for the model was .13, and adjusted \( R^2 \) was .12. See Table 4-3 for the unstandardized regression coefficients (\( B \)), standard error (SE), standardized regression coefficients (\( \beta \)) and other relevant information for each variable.

Table 4-3. Regression model for perceived stress predicting total relational health

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE</th>
<th>( \beta )</th>
<th>( t )</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Stress</td>
<td>-.03</td>
<td>.01</td>
<td>-.36</td>
<td>-3.87</td>
<td>&lt;.001**</td>
</tr>
</tbody>
</table>

*\( p < .001 \)
\( N = 101 \)

**Question 3**

Is coping style (e.g., engagement coping, disengagement coping) predicted by perceived relational health? The null hypothesis stated that there is not a linear relationship between relational health and coping style. A standard multiple regression analysis was performed with engagement coping and disengagement coping as the dependent variable, and relational health with community, teammate and head coach was the independent variable. The overall model was not significant when engagement coping and disengagement coping were analyzed separately in a standard multiple regression analysis. Furthermore, the relationship between relational health as the independent variable and coping style (i.e., engagement coping and disengagement coping) was not significant. Thus, the null hypothesis was accepted. The analysis included 100 observations. In the first analysis with engagement coping, the model was insignificant with \( F (3, 96) = 2.52, p = .06 \). The second analysis with disengagement
coping was also insignificant with $F(3, 96) = .54, p = .66$. The results indicated that relational health does not predict coping style.

**Question 4**

Is athlete satisfaction predicted by coping style (e.g., engagement coping, disengagement coping)? The null hypothesis stated that there is no relationship between coping style and athlete satisfaction. A standard multiple regression analysis was performed with engagement coping and disengagement coping as the independent variable and athlete satisfaction as the dependent variable. The hypothesis for Research Question 4 was partially supported. The results revealed that engagement coping was found to be a predictor of athlete satisfaction in the direction hypothesized; however, disengagement coping did not predict athlete satisfaction. Regression analysis revealed that the model was not significant; however, engagement coping was significant as an individual predictor. Additional analyses were performed with engagement and disengagement coping separately as predictors of athlete satisfaction. The model was significant for engagement coping, $F(1, 90) = 4.87, p = .03$. The $R^2$ for the model was .05, and adjusted $R^2$ was .04. The relationship between disengagement coping and athlete satisfaction was not significant. Table 4-4 displays other relevant information for each variable.

| Table 4-4. Regression model for engagement coping predicting athlete satisfaction |
|-------------------------------|-----------------|---------|-------|------|-----|
| Variable                      | B               | SE      | β     | t    | p   |
| Engagement coping             | .41             | .19     | .23   | 2.21 | .03*|

*p < .05

N = 92

$R^2 = .05$, adjusted $R^2 = .04$
Question 5

Is athlete satisfaction predicted by perceived stress (i.e., stress appraisal)? The null hypothesis stated that there is no relationship between perceived stress (i.e., stress appraisal) and athlete satisfaction. A standard regression analysis was performed with total athlete satisfaction as the dependent variable and perceived stress as the independent variable. The null hypothesis for Research Question 5 was rejected. The results indicated that there is a significant relationship and negative association between levels of perceived stress and athlete satisfaction. Specifically, the regression equation performed with perceived stress as the independent variable and athlete satisfaction as the dependent variable revealed that as perceived stress as indicated by the PSS10 increased, self reported athlete satisfaction decreased. Regression analysis revealed that the model was significant, $F (1, 91) = 10.43, p = .002$. $R^2$ for the model was .10 and adjusted $R^2$ was .09. Table 4-5 displays the unstandardized regression coefficients (B), standard error (SE), standardized regression coefficients ($\beta$) and other relevant information for each variable.

Table 4-5. Regression model for stress appraisal and total athlete satisfaction

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE</th>
<th>$\beta$</th>
<th>$t$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress appraisal</td>
<td>-.04</td>
<td>.01</td>
<td>-.32</td>
<td>-3.23</td>
<td>.002*</td>
</tr>
</tbody>
</table>

*p < .01  
N = 93  
$R^2 = .10$, adjusted $R^2 = .09$

Question 6

Does relational health with community, teammate and head coach mediate the relationship between perceived stress and athlete satisfaction? The null hypothesis stated that relational health does not mediate the relationship between perceived stress and athlete satisfaction. The results revealed that relational health significantly mediated the
relationship between perceived stress and athlete satisfaction. The overall model was significant with $F(2, 90) = 44.14, p < .001$. The $R^2$ for the model was .50, and adjusted $R^2$ was .48. See Table 4-6 for the unstandardized regression coefficients (B), standard error (SE), standardized regression coefficients ($\beta$) and other relevant information for each variable.

Table 4-6. Regression model for relational health as a mediator between perceived stress and athlete satisfaction

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE</th>
<th>$\beta$</th>
<th>$t$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Health</td>
<td>.99</td>
<td>.12</td>
<td>.68</td>
<td>8.36</td>
<td>&lt;.001*</td>
</tr>
<tr>
<td>Perceived Stress</td>
<td>.01</td>
<td>.01</td>
<td>-.06</td>
<td>-.77</td>
<td>.44</td>
</tr>
</tbody>
</table>

*p < .001
N = 93

A version of the Sobel Test (Preacher & Leonardelli, 2001) was utilized to determine whether relational health significantly mediated the relationship between perceived stress and athlete satisfaction. The Aroian test equation model (Baron & Kenny, 1986) substantiated the results, indicating that relational health significantly mediated the relationship between perceived stress and athlete satisfaction with a test statistic of -6.28 and $p < .001$. Therefore the null hypothesis was rejected.

**Summary**

The sample consists of a wide range of sports, spans 5 years of athletic participation and the information collected was during a prime competitive season for five of seven sports. All sports were engaged in daily team practices and scrimmages. As predicted, relational health significantly predicted total athlete satisfaction across all 15 subscales. Furthermore, a significant relationship and negative association between perceived stress and relational health was found. Among the female college student athletes who participated in this study, perceived stress predicted athlete satisfaction
across all 15 subscales. Although there was no relationship between coping style (i.e.,
engagement and disengagement coping) and athlete satisfaction, engagement coping was
found to predict reports of athlete satisfaction among the participants. A series of
regression analysis were performed to examine the relationship between perceived stress,
relational health and athlete satisfaction.

Relational health was examined as a mediator between perceived stress and
athlete satisfaction. The term mediation indicated that one variable (i.e., relational
health) explained the association between two other variables (i.e., perceived stress and
athlete satisfaction). Certain conditions must exist before it is possible to test for
mediation. A significant relationship between stress appraisal and athlete satisfaction,
stress appraisal and relational health, and a significant relationship between relational
health and athlete satisfaction must be substantiated. A series of multiple regression
analysis were performed with perceived stress as the independent variable, relational
health as the mediator and athlete satisfaction as the dependent variable. First, total
relational health was regressed on perceived stress, addressed earlier in Question 4. See
Table 4-4 for the unstandardized regression coefficients ($B$), standard error (SE),
standardized regression coefficients ($\beta$) and other relevant information for each variable.
The next analysis involved regressing athlete satisfaction on perceived stress. This
question was addressed in Question 5, and Table 4-5 summarizes the results. Finally,
athlete satisfaction was regressed on both the independent variable (i.e., perceived stress)
and the mediator (i.e., relational health). The results revealed significant associations in
the direction expected for each analysis.

The results indicated that perceived stress was significantly associated with
relational health, relational health was significantly associated with both perceived stress
and athlete satisfaction, and relational health was significantly associated with athlete
satisfaction independent of perceived stress (i.e., without perceived stress in the
equation). Furthermore, when relational health was included in the equation with
perceived stress and athlete satisfaction, the association between perceived stress and
athlete satisfaction decreased (Baron & Kenny, 1986). The change in this statistical
association suggested that relational health, not perceived stress, attributed to the strength
of the correlation between perceived stress and athlete satisfaction (Preacher &
Leonardelli, 2001), which is characteristic of mediating variables. In conclusion,
relational health significantly mediated the relationship between the independent
variable, perceived stress, and the outcome variable of athlete satisfaction. Therefore the
null hypothesis for last research question, which stated relational health does not mediate
the relationship between perceived stress and athlete satisfaction, was rejected.
This study examined the association between relational health, a construct of psychological functioning for women, and overall athlete satisfaction among female college athletes. The role of relational health as a mediator between perceived stress and athlete satisfaction was also examined. A summary of the research findings, implications for theory, practice and research are presented in this chapter. The chapter concludes with a discussion addressing the recommendations for future research and a summary of the study.

Summary of the Research Findings

Relational Health and Athlete Satisfaction

The first hypothesis proposed a positive association between female college athletes’ relational health and athlete satisfaction. A standard multiple regression analysis was performed with athlete satisfaction as the dependent variable and the relational health with the athletic community, teammates, and head coach as independent variables. The results revealed a positive association in the direction expected for both the athletic community and head coach subscales. Participants’ who reported higher levels of relational health with members of the athletic community and head coaches, also reported higher levels of overall athlete satisfaction, as measured by the Athlete Satisfaction Questionnaire (ASQ; Riemer & Chelladurai, 1998).

Included in the satisfaction measure were scales on team and individual performance, coaches’ behaviors and treatment of the athlete, training and instruction,
team task and social contributions, personal dedication, ability utilization, and team integration. Other facets of satisfaction included in the results were ethics, budget, medical and academic support and external agents. Previous research studies proposed an association between the relationship with the head coach (Bell, 1997; Bump, 1986; Horne & Carron, 1985; Jowett, 2003; Nakamura, 1996; Newcomb, 1990; Poczwardowski, 1998; Tuffey, 1995) and other forms of social support with one or more aspects of the athletic experience including wellness, perceived satisfaction, and performance (Crocker & Graham, 1995; Giacobbi et al., 2004; Gould et al., 1993; Lazarus, 2000; Scanlan et al., 1991).

Although the results were not significant for the teammate subscale, teammates are also members of the athletic community. Consequently, it is difficult to interpret the implications of the results for teammates more accurately due to the nature of the statistical analysis performed. One way to further examine the impact of an athlete's relationship with her teammates on perceived satisfaction is to perform a simple regression analysis using only the teammate subscale. Previous studies indicated that teammate support is influential on certain aspects of the athletic experience. Coaches found through their experience that a competitive and supportive team atmosphere was an “important influence on the skill development process for successful college athletes” (Giacobbi, Whitney, Roper, & Butryn, 2002). In conclusion, the results of this study further demonstrated the importance of developing growth-fostering relationships to facilitate a more successful and satisfactory athletic experience for female college athletes.
Relational Health and the Stress Appraisal

As predicted, the second hypothesis, which proposed a connection between perceived stress and the total score of relational health, was supported by the results. A negative association between perceived stress and relational health was revealed (i.e., the results indicated that as perceived stress decreased, relational health increased). Thus, the results supported the assertion that female college athletes benefit from mutual, authentic, and intimate interpersonal relationships with all members of the athletic community. Furthermore, the results indicated that the quality of relationships with members of the athletic community, teammates, and head coaches was related to a female college athletes’ perception of the person-environment relationship and subsequent stress appraisal.

A lack of social support or the wrong kind of support, such as a lack of connection in relationships, was found to be a source of stress for female college athletes (Cohen & McKay, 1983; Dunkel-Schetter, 1984; Giacobbi et al., 2004; Scanlon et al., 1991). An inductive analysis with 26 elite figure skaters helped researchers establish major sources of stress from the athletes’ perspective. Negative significant-other relationships ranked second only to negative aspects of competition and above costs of skating, personal struggles and traumatic experiences (Scanlon et al.). A study with Division I female college athletes (Giacobbi et al.), indicated that disconnected interpersonal relationships with others including teammates and coaches had a profound impact on freshmen swimmers’ perceived stress and overall athletic experience, which further validated the connection between stress and the quality of interpersonal relationships with members of the athletic community. Similarly, the results of this study indicated that female college athletes’ perception of stress was directly connected to the
quality of their interpersonal relationships with members in the athletic community, including teammates and head coaches, and therefore highlighted the important role of relationships in the stress and coping process.

**Relational Health and the Coping Process**

Athletes with the highest self-reported levels of relational health were predicted to have higher levels of engagement coping and lower levels of disengagement coping. Hypothesis three was based on the theoretical and empirical evidence linking relationships or social support in general with coping responses (Billings & Moos, 1981, 1984; Folkman & Lazarus, 1980, 1985; Folkman et al., 1986; Jou, & Fukada, 1997; Mitchell, Cronkite, & Moos, 1983; Ptacek et al., 1992; Taylor, Cousino Klein, Lewis, & Gruenewald, 2000; Vitaliano, Russo, Carr, Maiuro, & Becker, 1985). Unlike the outcomes of previous studies, Hypothesis 3 was not supported by the results of this study.

Inconsistent with these results, the findings from previous studies revealed that interpersonal relationships within the social support network were associated with coping strategies, which subsequently affected athletes’ performances and satisfaction (Folkman & Lazarus, 1988; Fondacaro & Moos, 1987; Giacobbi et al., 2004). Moreover, the use of the RCT in Hypothesis 3 was also based upon the similarities between the characteristics of growth-fostering relationships, according to the RCT, and engagement coping. Specifically, growth-fostering relationships entail a level of mutuality; reciprocity of inspiring and empowering transactions between two people that require initiative or engagement on each person’s behalf (Jordan, 1997b, 1999, 2001; Jordan et al., 1991; Miller, 1986; Miller & Stiver, 1997). Likewise, engagement coping requires a safe environment, and individuals who utilize this coping strategy typically possess a strong sense of self-esteem and good communication skills (Anshel et al., 2001; Roth & Cohen,
Therefore, different levels of relational health reported by female college athletes were predicted to either foster or inhibit an environment for engagement coping to occur.

Contrary to the theoretical support and previous empirical findings, the results of this study did not reveal a significant relationship between relational health and coping style (i.e., engagement or disengagement coping). The results were also inconsistent with the transactional theory of stress and coping, which states that a link between the stress appraisal and coping response exists (CMRT); however, Lazarus (1999) noted that coping is second in importance only to appraisal. According to the CMRT, the coping response is influenced by multiple variables within the context of the person-environment relationship at one moment in time, which further highlights the complex nature of the stress and coping process. Coping tends to alter the way stress impacts a person’s perspective and emotional response to an event (Skinner et al., 2003). Folkman and Lazarus (1988) referred to coping as a mediator of emotion. More specifically, coping is a “powerful mediator” between cognitive appraisals of stressful events and various physical and emotional outcomes (Lazarus, 1999, p. 121). Therefore, the relationship between coping style and athlete satisfaction was also examined.

The Stress and Coping Process and Athlete Satisfaction

Coping and Athlete Satisfaction

Hypothesis 4 examined the association between engagement coping and athlete satisfaction, and disengagement coping and athlete satisfaction. The results partially supported Hypothesis 4, which revealed a significant relationship between engagement coping and athlete satisfaction. For the purposes of this study, engagement coping entailed active cognitive and behavioral efforts toward managing aspects of a stressful event (Anshel et al., 2001; Hardy et al., 1996; Lazarus & Folkman, 1984; Roth & Cohen,
1986; Tobin et al., 1989). The results of this study showed that as active coping or positively focusing on the task increased, reports of athlete satisfaction also increased. The results were consistent with the findings from previous studies, which indicated that the effects of effort-related coping strategies significantly predicted positive affect (Crocker & Graham, 1995; Ntoumanis & Biddle, 1998).

Similar effects of active coping were found on college students’ transition to college and academic performance (Aspinwall & Taylor, 1992; Giacobbi et al., 2004). More specifically, after “controlling for initial positive and negative mood, the beneficial effects of optimism, control, and self-esteem on adjustment were mediated by the nonuse of avoidance coping, greater use of active coping, and greater seeking of social support” (Aspinwall & Taylor, p. 989). A study on coping effectiveness (Haney & Long, 1995) suggested that both engagement and disengagement coping were associated with performance and performance satisfaction. Behavioral disengagement and venting of emotions have been consistently associated with negative affect while active coping behaviors were associated with positive affect (Crocker & Graham, 1995; Kim & Duda, 2003; Pensgaard & Duda, 2003). According to Lazarus (2000), the problem-focused approach encompasses the creative utilization of active coping options, which helps eliminate or change the stressful encounter. As a result of this process, new meaning of the person-environment relationship emerges and the exploration of the stressful event leads to personal options and resources to enhance creativity for solutions.

Active or approach coping represents an athlete’s attempts to improve their “emotional status” and reduce “stress intensity” by “thinking about or analyzing the event, planning an effective response, [and] using cognitive strategies” to cope (Anshel et al., 2001, pp. 53-54). Engagement coping is also consistent with Folkman and Lazarus’s
(1988) definition for the term “problem-focused coping.” Examples of engagement coping include positive self-talk, and self-confidence building, and this type of coping illustrates a more proactive approach as compared to disengagement coping.

Disengagement behaviors refer to actions that focus attention away from the stressful event such as ignoring the task and focusing negatively on self rather than on the task (Haney & Long, 1995; Tobin et al., 1989). By contrast, active coping strategies entail changing the stressful experience through cognitive or behavioral efforts (Lazarus, 1999), require a sense of control over a situation (Anshel et al.), and are therefore reinforced by coaches and valued by athletes.

Compared to problem and emotion-focused coping (Folkman & Lazarus, 1988), the higher order categories of engagement and disengagement coping used in this study are more appropriate for female athletes. In previous studies, emotion-focused strategies such as emotional venting and seeking support for emotional reasons were associated with negative affect, poor behavior, and even performance outcomes (Crocker, 1992; Crocker & Graham, 1995; Lazarus, 2000). Engagement and disengagement coping categories eliminate the perceived hierarchy of problem-focused over emotion-focused coping strategies through the inclusion of the emotional support-seeking behaviors as an active coping strategy. Female college athletes may rely on their social support networks to mitigate the effects of stress (Giacobbi et al., 2004; Jowett, 2003) even if their response does not change or resolve the stressful situation. As a result, relational coping efforts utilized by female college athletes can be recognized as a form of engagement. According to the results of this study, female college athletes who utilized engagement coping behaviors in response to stress also reported higher levels of satisfaction.
Stress and Athlete Satisfaction

Hypotheses 5 examined the association between stress appraisal and athlete satisfaction. The statistical analysis revealed a significant negative association. As expected, an increase in the levels of perceived stress resulted in a decrease of athlete satisfaction. Previous sport psychology studies indicated that stress hindered optimal athletic performance (Burton, 1988; Gould et al., 1987; Lazarus, 2000) and enjoyment of the athletic experience (Scanlon et al., 1991). Anxiety experienced by athletes was correlated with psychological adjustment (Crocker, 1992; Madden, Summers & Brown, 1990; Ntoumanis & Biddle, 1998, as cited in Kim & Duda, 2003). In a study by Pensgaard and Duda (2003) optimizing emotions were related to coping effectiveness, which resulted in positive competitive results. According to Lazarus, positive emotions likely result in positive outcomes.

Lazarus and Folkman (1984) and Folkman (1992) encouraged researchers to determine the effectiveness of coping strategies in stressful situations on a short and long term basis (Kim & Duda, 2003). Specifically, Lazarus and Folkman (1984) suggested using indices of psychological well-being or general satisfaction with the particular activity or situation (Folkman, 1992). In athletic settings, psychological well-being or satisfaction is reflective of successful adaptation to the sport environment (Hanin, 2000).

Relational Health as a Mediator between Perceived Stress and Athlete Satisfaction

A significant association between perceived stress and athlete satisfaction, perceived stress and relational health, and relational health and athlete satisfaction was found in this study. Based on previous studies and made possible by the fact that these relationships were all significant, relational health was examined as a possible mediator between perceived stress and athlete satisfaction. The hypothesis was substantiated by
the results in the direction expected. Relational health was a significant mediator between perceived stress and perceived athlete satisfaction. As a mediator, relational health first was examined to verify that it was significantly associated with athlete satisfaction independent of perceived stress (i.e., without perceived stress in the equation). As noted earlier in the results section, the association between perceived stress and athlete satisfaction decreased when relational health was included in the equation (Baron & Kenny, 1986). The change in this statistical association suggested that relational health, not perceived stress, attributed to the strength of the correlation between perceived stress and athlete satisfaction (Preacher & Leonardelli, 2001).

Athletes who are not engaged in growth-fostering relationships with others experienced more excessive stress. Furthermore, athletes with lower levels of relational health in terms of the quality of their relationships with members in the athletic community, teammates, and head coaches reported more dissatisfaction in their personal and social experiences and performance outcomes compared to female athletes with higher levels of relational health. Previous studies indicate that chronic stress reduces mental functioning, heightens anxiety and depression, and diminishes self-esteem and perceived self-control (Gottlieb, 1997; Smith, 1986), all of which have deleterious effects on athletic participation, satisfaction and performance, mental withdrawal (as cited in Anshel et al., 2001). Previous studies also support the association between healthy supportive relationships and a variety of relevant outcomes for female college athletes. Belle (1982, 1987) found that supportive relationships protect individuals from depression and distress. Therefore, cultivating relational health among female college athletes and all members of the athletic community may provide a buffer against the deleterious effects of depression on academic performance (Heiligenstein et al., 1996),
Implications and Recommendations

Implications of the Findings

Overall, the results empirically validated the assertion that relational health was associated with perceived levels of stress and satisfaction for female college athletes. The findings also support the use of the RCT, a relational perspective on psychological health, for examining the interpersonal relationships of female college athletes and the effects of their relationships on perceived stress and athlete satisfaction. Moreover, the results illustrated the potential benefits of utilizing a feminist perspective within the research process. Specifically, this research was designed from a feminist perspective, taking into account gender and power issues in athletics, feminist models of psychological development, and an understanding of the male dominated athletic culture. The findings support the feminist notion that relationships have a powerful influence on all aspects of women's lives.

Implications for Theory

Two theoretical frameworks were integrated in this study and they include the relational-cultural theory (RCT) and the cognitive-motivational-relational theory of emotion (CMRT). The RCT emphasizes the relational movement as a process of mutual exchanges where empowering and growth facilitating transactions between people occur (Jordan, 1994, 1997c, 1999, 2001). The CMRT emphasizes a dynamic and recursive stress and coping process. The CMRT asserts that the stress appraisal influences the coping response, which influences re-appraisals. Furthermore, the personal relevance of
the person-environment relationship is the central element contributing to stress appraisals (Lazarus, 1999).

Empirical evidence from this study provided further support of the RHI (Liang, Tracy, Taylor, Williams, et al., 2002), an instrument to measure relational health (RCT), and the relationship between relational health, the stress appraisal (CMRT), and athlete satisfaction (ASQ; Riemer, & Chelladurai, 1998). First, the empirical evidence indicated that relational health with members of the athletic community, teammates and head coach had a direct, positive linear relationship with perceived satisfaction. Second, the empirical evidence suggested that relational health was a key contributor in the construction of the person-environment relationship and, subsequently, the stress appraisal. Relational health, a psychological construct that has evolved from the RCT, is therefore a useful concept for sport practitioners to consider when researching the way in which female college athletes perceive stress, construct stress appraisals, and ultimately achieve satisfactory experiences in an elite collegiate athletic environment.

The participants of this study scored similarly on the dimensions of the RCT compared to other samples (Arce, 2004; Goldman, 2001; Liang, Tracy, Taylor, & Williams, 2002; Mears, 2002; Sutherin, 2002; Walsh, 2001), which suggests that the RCT is applicable to female college athletes. According to the RCT, relationships are at the core of a women’s sense of esteem and are a primary source of empowerment. However, relationships that lack the qualities of mutual engagement, authenticity, and empowerment/zest result in a diminished self-esteem and self-efficacy (Jordan, 1994; 1997a; Miller, 1986; Miller & Stiver, 1997). The results of this study revealed that a female college athlete’s perception of stress and overall satisfaction was directly related to the quality of her relationships shared with all members of the athletic community.
More precisely, the construct of relational health significantly mediated the relationship between perceived stress and athlete satisfaction. Furthermore, the results highlighted the role of growth-fostering relationships within a support network as a source of emotional empowerment for female college athletes. Therefore the results imply that practitioners should refrain from placing support-seeking behaviors on a hierarchical platform that associates emotion-focused coping with inferior coping responses.

Compared to the total body of research in which the RCT was used as a theoretical framework, relatively few research studies utilized a quantitative design to explore different aspects of relational health as a clinically relevant tool in working with female college athletes. Therefore, this research study expanded on the body of quantitative research that promotes the benefits of creating and nurturing connected, growth-fostering relationships as a medium through which women experience psychological well-being. Moreover, the theoretical synthesis provided a means for a more thorough investigation of the stress and coping process among female college athletes. The empirical evidence supported the rationale to include a relational paradigm when examining psychosocial constructs among female college athletes.

In general, the results of this study contribute to the understanding of the relational paradigm from which female college athletes construct stress appraisal, respond to stress, and achieve satisfaction. In addition to promoting a better understanding regarding the effects of stress on athlete satisfaction, the results of this study provide practitioners with a more thorough perspective on the role growth-fostering connections with members in the athletic community, teammates, and head coaches serve in fostering or inhibiting healthy psychological functioning. Although the findings suggested that relational health with members of the athletic community, teammates, and
head coaches’ mediated the relationship between perceived stress and athlete satisfaction, relational health is certainly not the only construct accounting for athlete satisfaction. However, relational health is an important construct for mental health professionals, college administrators, and members of the athletic community to consider when working with this population to foster each female college student athlete’s goal of personal and athletic fulfillment.

**Implications for Practice**

The results provide practical implications for all persons who work directly and indirectly with this population, including college and athletic administrators, coaches, managers, trainers, nutritionists, mental health practitioners, sport psychology consultants, and academic and medical support staff. Female college athletes interact with many members of the athletic and academic community during their college career on a daily basis, and the results supported the notion that community, peer, and mentor relational health specifically within the athletic context had a significant effect on the athletic experience. Therefore all members of the athletic community must understand the importance of creating and maintaining growth-fostering relationships as a powerful influence on personal and athlete satisfaction as well as a mediator of perceived stress on athlete satisfaction.

Specific ways to create and nurture growth-fostering relationships include active listening and engagement or attunement to the athletes’ concerns, questions or sharing daily experiences. Growth-fostering relationships require a safe, intimate environment where two or more people can feel vulnerable in the presence of the other, free to take risks, and be creative. Reciprocity, mutual empathy, genuine respect, and individual attention are some characteristics of a growth-fostering environment, which fosters
relational health among members (RCT). Justifiably, the administrators of elite collegiate athletic association may be more concerned with how their staff performs under the pressures of increasingly restrictive academic standards, athletic requirements, and growing numbers of athletic participants, which leaves little room for administrative errors. As a result, individual and immediate attention to each athletic participant may be an unrealistic goal. However, the results of this study illustrate the many benefits of adopting a relational approach to working with female college athletes. Although hiring a staff of mental health practitioners to work with all members of an institution’s athletic department would be the ideal method to improve athletes’ relational health, a less costly initial approach may be to invite mental health practitioners to implement workshops with athletic administrators, coaches, and all members of the athletic community to encourage healthy development and interpersonal relationship skills between the athletic association’s employees and the female college athletes with whom they work.

Important implications for counseling centers and mental health practitioners who work with the athletes on an individual and systemic level also arise from the results of this study. Similar to the results of several surveys (Benton et al., 2003; Gallagher, 2000; Resnick, 2003), which indicated that relational issues are of primary concern for college students, female college athletes reported that the quality of their relationships with members of the athletic community, teammates, and head coaches significantly impacted their athletic experience. Athletes who reported lower levels of relational health perceived higher levels of stress compared to athletes with higher levels of relational health as measured by the Relational Health Indices (RHI; Liang, Tracy, Taylor, Williams, et al., 2002). Athletes with higher levels of perceived stress were more dissatisfied with their overall athletic experience. The facets of the athletic experience
entailed 15 different domains of athlete satisfaction to generate a total score of the athletes’ overall perceived satisfaction. The domains included individual and team performances, ability utilization, personal dedication, personal treatment, training and instruction, and coaches’ strategy. Other areas included team integration, team task and social contributions, ethics, budget, medical and academic personnel, and external agents.

The results were consistent with findings from previous studies, which indicated that the quality of interpersonal relationships or lack thereof was both a protective factor and significant source of stress (Arce, 2004; Belle, 1982; Giacobbi et al., 2004; Rees & Hardy, 2000; Scanlon et al., 1991). The results were also consistent with research that associated the athlete-coach relationship with athletes’ wellness, performance, or satisfaction with the athletic experience (Bump, 1986; Jowett, 2003; Nakamura, 1996; Tuffey, 1995). While visual imagery, biofeedback, and other popular performance-focused techniques commonly utilized by sport psychologists are merited, sport practitioners must also understand the relational nature of psychological health, development, and the effects of growth-fostering relationships on perceived stress and satisfaction among female college athletes.

Counseling resources provided through the university often introduce college athletes to the mental health care system. Athletic directors and counseling center directors may have the option to hire mental health specialists to work directly with the athletes and various members of the athletic community on the college campus throughout the year. However, penetrating the resistance embedded within the male-oriented athletic culture may be the first step toward educating the members within the athletic community of the importance of relational health. For many athletes, counseling may be viewed as a sign of weakness or even failure, which directly conflicts with an
athlete’s intensely driven nature to dominate her competitors and become mentally and physically stronger. Therefore, it is important that administrators, counselors, and sport practitioners communicate the potentially beneficial effects of relational health on perceived stress and athlete satisfaction among female college athletes to all members of the athletic and campus community. If perceived as a supplemental aid to further improve an athlete’s potential, athletes may be more receptive to counseling outreach services. Furthermore, if coaches are more receptive as a result of recognizing the significant and far reaching benefits of improved relational health among female college athletes, athletes will more likely follow suit.

Outreach services should be educational in nature to transcend the obstacles that inhibit the flow of information from a counselor to athletes, coaches and all members of the athletic community. One way to serve the athletic community is for athletic organizations to offer specific workshops on team building, and interpersonal skills led by a licensed mental health practitioner each semester. A lack of outreach services, mentor programs, and team building initiatives inhibits the opportunity for student athletes to create and nurture growth-fostering relationship with members in their athletic community and may therefore have detrimental effects on the psychological well-being of female college athletes. Student-athletes will also benefit from outreach services offered through the university, particularly when the focus of the service is to integrate the student body, thereby providing an opportunity for students to make connections with their peers, mentors and members in the community at large. One example of an outreach program is to invite all students, coaches, professors, administrators, and community leaders for a luncheon where several trained counselors facilitate a discussion on relevant campus related issues. A goal for outreach programs is to increase student-
athletes’ sense of belonging to the community, or “connectedness” with the campus community (Jordan, 1997c, 1999) and perceived control over their environment.

**Implications for Research**

The results of this study supported the assertion that relational health mediated the relationship between perceived stress and satisfactory athletic experiences for female college athletes. The empirical evidence from this study is a contribution to the collective efforts to “assure generalizability and to expand our understanding of the complexity of relational health and its impact on successful adjustment” (Liang, Tracy, Taylor, Williams, et al., 2002, p. 32). Consistent with earlier findings (Arce, 2004; Goldman, 2001; Liang, Tracy, Taylor, Williams, et al.), the results from this study further validated the RHI (Liang, Tracy, Taylor, Williams, et al.) as a measurement of relational health across diverse populations. Likewise, the results of this study support the idea that relational health, a psychological construct of healthy development and functioning (Jordan, 1999), is important to consider when examining a variety of important athletic outcomes including motivation, burnout, leadership, athletic improvement, susceptibility to injury, and dropout among female college athletes. Relational health is also important in examining female college athletes’ personal strengths, adaptive coping, and positive affect (Folkman & Moskowitz, 2000) as an alternative to studying coping “situated in a particular stressful encounter or stressful social condition,” (p. 647).

**Recommendations for Research**

Research examining the potential ethnic and cultural differences in relational health with members of the athletic community is encouraged. One way to examine ethnic and cultural differences in relational health is to engage more female athletes from a minority background in the research process. Additional research on the strengths and coping styles of female college athletes’ of minority groups from a relational paradigm
can enhance sport practitioners’ understanding of the impact of gender, race, culture, and class on the personal and athletic experience from a holistic perspective (Hall, 2001). In addition to studying ethnic and cultural differences in relational health among female college athletes and members in the athletic community, several other steps may be taken to improve the current study. For example, the sample consisted of female college athletes from a single Division I university in the southeastern region of the United States. Although several athletes from different backgrounds and areas of athletic expertise participated, the data cannot be generalized beyond this population without caution. Therefore, recommendations for additional research include a larger and more diverse sample across different universities, athletic conferences, and levels of athletic ability. Another recommendation for future research includes examining differences between certain athletic teams such as basketball players versus gymnasts. Furthermore, because the authors of the RCT assert that relational health is a perspective of growth and development for all human beings, a future direction may be to study the relevance of relational health as a psychological construct among male athletes.

Additional steps may also reduce the potential for misinterpretation of the data and improve the generalizability of the results. Improvements in the stress and coping instruments such as creating a test assessment of higher order coping categories with stronger psychometric properties may enhance the understanding of the stress and coping process among female college athletes. Including a qualitative component to the research process may enhance the richness of the data in terms of identifying the nature of the stress, stress appraisal, and emotional response with more detail (Strean, 1998). Expanding the time frame in which stressful events and subsequent coping responses occur to include an assessment of stress appraisal and coping strategy utilized
immediately after a stressful event, and again at 1 month and at 1 year, would greatly increase the understanding of how stress affects athletes in the short- and long-term intervals, and how the mediating effect of relational health changes over the course of time.

The coach-athlete relationship is associated with the athletes’ perceptions of their athletic experience (Bredemeier, 2001; Bump, 1986; Jowett, 2003; Nakamura, 1996; Poczwardowski, 1998; Tuffey, 1995). Reciprocal behaviors and helping transactions between the coach and the athlete are essential in creating a coaching connection from which to teach and to train (Bredemeier; Jowett). Jowett suggested that the athlete-coach relationship may be the most significant relationship in the athletic setting because it can impact an athlete’s sense of self esteem, confidence, performance accomplishments, and levels of stress. Female athletes seek one-on-one communication with the coach and want the coach to be invested in their relationship (Tuffey). Coaches agree that athletes are more likely to make significant progress with skill development if they participate in individual meetings, one-on-one instruction sessions, and if the coach makes the effort to get to know the athlete as an individual (Giacobbi et al., 2002). Therefore, another direction to take with this research is to specifically focus on relational health with the head coach to determine the impact of the quality of this relationship on specific domains of athlete satisfaction, which may more closely pertain to the athlete’s physical performance and satisfaction with relationships in the athletic setting. Specifically, further examination of the head coach subscale as a mediating variable between perceived stress and specific athletic outcomes such as ability utilization, dropout, and length of recovery for an injury or other relevant topics for coaches and athletic administrators is encouraged.
Summary

Female college athletes desire connectedness with others through growth-fostering relationships, which serve as a central source of psychological empowerment, identity development, and self-confidence. An important hypothesis of this study stated that an increase in female college athletes’ perceptions of relational health was associated with perceived stress and coping strategies, and satisfaction with the athletic experience. In summary, the results indicated athletes who reported higher levels of relational health with members of the athletic community reported greater satisfaction on the athlete satisfaction scale, which entailed 15 different aspects of the athletic experience including but not limited to personal and team performance, team task contribution, team social contribution, team integration, personal dedication, utilization of ability, coaching strategies, and personal treatment from coaches.

Consistent with earlier findings, the results of this study highlighted the statistically significant association between the role of positive, connected relationships within the context of a social support system on athlete satisfaction (Allen & Howe, 1998; Barnett, Mole & Smith, 1992; Bredemeir, 2001; Bump, 1986; Giacobbi et al., 2004; Jowett, 2003; Tuffey, 1995) as well as the connection between social support and perceived stress (Brugha et al., 1990; Lefcourt, Martin, & Saleh, 1984; Sandler & Lakey, 1982). Moreover, consistent with the results from several other studies, which proposed an association between emotional health and supportive relationships (Belle, 1982; Folkman & Lazarus, 1986; Lazarus, 2000; VanderVoort, 1999; Vaux, 1992; Weinstein, 2001), the results of this study also substantiated the association between female college athletes’ mental wellness, as evidenced in this study by a decrease in perceived stress, and relational health with members in their support network. The results indicated an
inverted relationship between perceived stress and relational health with members of the athletic community, teammates, and the head coach. Overall, the results indicated that relational health significantly mediated the relationship between perceived stress and athlete satisfaction (i.e., perceived stress predicted athlete satisfaction because it was associated first with relational health, which predicted athlete satisfaction). Although relational health was not significantly associated with engagement or disengagement coping, engagement coping was significantly associated with female college athletes’ perceived satisfaction as indicated by the ASQ (Riemer & Chelladurai, 1998).

In conclusion, total relational health as indicated by all items averaged across all three subscales with community, teammates, and head coach mediated the effects of stress on athlete satisfaction, and had a direct effect on the athletic experience among female college athletes. The results of this study were consistent with the premise of several research studies that have highlighted the powerful, far-reaching impact of the coach-athlete relationship (e.g., Balague, 1999; Bell, 1997; Biesecker, & Martz, 1999; Bredemeir, 2001, Bump, 1986; Giacobbi et al., 2004; Harris, 1997; Horne & Carron, 1985; Jowett, 2003; Miller-Tait, 1993; Nakamura, 1996; Newcomb, 1990; Poczwardowski, 1998; Tuffey, 1995; Weiss & Friedrichs, 1986), specifically with regard to the profound influence of the athlete-coach relationship on an athlete’s satisfaction (Barnett et al., 1992; Johnson, 1999). The results of this study further illustrated the importance of growth-fostering relationships and connectedness as a desired characteristic of the athlete-coach relationship, as well as the value of relational health with all members of the athletic community on perceived stress and athlete satisfaction.

Few studies have utilized the Relational-Cultural Theory (RCT) as a framework to examine stress and coping or athlete satisfaction among female college athletes. The
empirical evidence from this study demonstrated the importance of using a feminist framework, such as the RCT, which values the role of healthy, supportive relationships and the subsequent impact of these relationships on all levels of psychological functioning. The findings shall encourage sport practitioners to seek a greater understanding of female college athletes’ unique experiences in sport and cultivate relational health among all members within the athletic culture.
APPENDIX A
LETTER TO COACHES
Date: [Date]

To: [Coach]
University of Florida
Athletic Association
Head [Sport] Coach

From: Jaime La Farr-Jenkins, Ed.S, NCC, LMHC
Academic Advisor,
College of Liberal Arts and Sciences and Office of Student Life
Academic Advising Center Room 117
100 Fletcher Drive
University of Florida, Gainesville FL 32611
jjenkins@advising.ufl.edu, ph: 392-1521 ext. 117 or 375-4683 ext. 5700

Subject/Title: “A gendered perspective: Examination of relational health, stress and coping and athlete satisfaction among female student athletes.”

Supervisor: James Archer, Ph.D.
Department of Counselor Education

Dear [Coach],

I am sending you this letter to ask your permission to address the team at the most convenient time for you and the athletes to seek volunteers for my study. I am also asking for permission to hang a flyer advertising my study in your athletes’ locker room. For my dissertation, this is the last study where I will explore the impact of female college student athletes’ relationships with their coaches, teammates and athletic community on athlete satisfaction. I will also examine how the stress and coping process impacts the relationship between relational health and athlete satisfaction, such as the student athletes’ ability to cope effectively with sport related stress. Participants will be asked to complete a combination of surveys and questionnaires estimated to take approximately 40 minutes to complete. The purpose of this study is to gain insight on potential constructs that may directly tie into sport performance, from which the athletes and coaches can benefit.

Please find the informed consent attached. Participation is strictly voluntary and no consequence of any kind will be served to those who do not participate. No compensation will be awarded. To ensure confidentiality to all participants, I will need to speak with the athletes without their coaches present. I will contact you by phone in the next several days to answer any questions you may have.

Thank you for your time,

Jaime Jenkins
APPENDIX B
FLYER

REQUESTED:
PARTICIPATION OF FEMALE COLLEGE STUDENT ATHLETES

How do you feel about your relationship with your coaches, teammates or any member in the athletic community such as a trainer or strength coach in terms of their influence on your:

- Confidence, self-esteem or general well being
- Athletic performance
- Ability to recognize stress and handle sport related stress
- Enjoyment in terms of your athletic experience

Have you experienced stress in the past month in a practice or competition that affected your ability to perform the way you wanted?

Are you interested in voicing your experience as a student athlete?

IF YOU ANSWERED “YES” TO ANY ONE OF THESE, YOU ARE PERFECT FOR THIS STUDY:

If you are interested, please contact me and we will go over your rights as a potential participant and the details of the study. If you then choose to volunteer, the study will take about 40 - 45 minutes to complete. Your participation will be strictly confidential. Coaches and all members of the athletic community are excluded from this study; however permission was obtained from your coach to meet with willing participants. No compensation will be awarded. Your personal identity will not be connected to participation in this study.

Contact me, the principal investigator:
Jaime La Farr Jenkins
Academic Advising Center, Room 117
375-4683 Ext. 5700 or 392-1521 Ext. 117
jjenkins@advising.ufl.edu
APPENDIX C
RELATIONAL HEALTH INDICES QUESTIONNAIRE

Sport: ____________________ Ethnicity or Race: ____________________
Athletic year: (frosh, soph, jr, sr)__________ Academic year:__________

THE RELATIONAL HEALTH INDICES -C

Next to each statement below, please indicate the number that best applies to your relationships with or involvement in the athletic community.

1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Often; 5 = Always

____ 1. I feel a sense of belonging to this community.

____ 2. I feel better about myself after my interactions with this community.

____ 3. If members of this community know something is bothering me, they ask me about it.

____ 4. Members of this community are not free to just be themselves.

____ 5. I feel understood by members of this community.

____ 6. I feel mobilized to personal action after meetings with this community.

____ 7. There are parts of myself I feel I must hide from this community.

____ 8. It seems as if people in this community really like me as a person.

____ 9. There is a lot of backbiting and gossiping in this community.

____ 10. Members of this community are very competitive with each other.

____ 11. I have a greater sense of self-worth through my connection with this community.

____ 12. My connections with this community are so inspiring that they motivate me to pursue relationships with other people outside of the community.

____ 13. This community has shaped my identity in many ways.

____ 14. This community provides me with emotional support.
THE RELATIONAL HEALTH INDICES-T

Next to each statement below, please indicate the number that best applies to your relationship with a close teammate, someone whom you feel attached to through respect, affection, and/or common interests. A close teammate is someone you can depend on for support and who depends on you.

1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Often; 5 = Always

__ 1. Even when I have difficult things to share, I can be honest and real with my teammate.

__ 2. After a conversation with my teammate, I feel uplifted.

__ 3. The more time I spend with my teammate, the closer I feel to her.

__ 4. I feel understood by my teammate.

__ 5. It is important to us to make our friendship grow.

__ 6. I can talk to my teammate about our disagreements without feeling judged.

__ 7. My friendship inspires me to seek other friendships like this one.

__ 8. I am uncomfortable sharing my deepest feelings and thoughts with my teammate.

__ 9. I have a greater sense of self-worth through my relationship with my teammate.

__ 10. I feel positively changed by my teammate.

__ 11. I can tell my teammate when she/he has hurt my feelings.

__ 12. My friendship causes me to grow in important ways.

THE RELATIONAL HEALTH INDICES-HC

Next to each statement below, please indicate the number that best applies to your head coach.

1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Often; 5 = Always

__ 1. I can be genuinely myself with my head coach.

__ 2. I believe my head coach values me as a whole person (for example professionally or athletically, academically and personally).
____ 3. My head coach’s commitment to and involvement in our relationship exceeds that required by her/his professional role (example, coach goes above and beyond his or her coaching duties).

____ 4. My head coach shares stories about his or her own experiences with me in a way that enhances my life.

____ 5. I feel as though I know myself better because of my head coach.

____ 6. My head coach gives me emotional support and encouragement.

____ 7. I try to emulate the values of my head coach (such as social, academic, religious, physical or athletic).

____ 8. I feel uplifted and energized by interactions with my head coach.

____ 9. My head coach tries hard to understand my feelings and goals (academic, personal, and athletic).

____ 10. My relationships with my head coach inspires me to seek other relationships like this one.

____ 11. I feel comfortable expressing my deepest concerns to my head coach.
APPENDIX D
PERCEIVED STRESS SCALE

Instructions: The questions in this scale 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. 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.

Note: Participants were asked to rate their responses from 0-4 with 0= never, 1= almost never, 2= sometimes, 3= fairly often and 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 felt confident about your ability to handle your personal problems?

5. In the last month, how often have you felt things were going your way?

6. In the last month, how often have you found that you could not cope with all of the things that you had to do?

7. In the last month, how often have you been able to control irritations in your life?

8. In the last month, how often have you felt that you were on top of things?

9. In the last month, how often have you been angered because of things that happened that were outside of your control?

10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?
APPENDIX E
COPING CHECKLIST FOR SPORT

Instructions: Think about an ongoing stressful experience in your sport or one that you endured in an athletic competition or practice situation in the last month. Read the items below and indicate how much you use each strategy during athletic competition or practice.

0 = not used or does not apply
1 = used very little or applies some
2 = used a good amount or usually applies
3 = used a great deal or almost always applies

1. I put aside other activities in order to concentrate on this ___
2. I went over in my mind what I would do ___
3. I kept myself from getting distracted by other thoughts or activities ___
4. I knew what had to be done, so I doubled my efforts to make things work ___
5. I stood my ground and fought for what I wanted ___
6. I tried hard to prevent other things from interfering with my efforts at dealing with this ___
7. I just concentrated on what I had to do next—the next step ___
8. I tried not to act too hastily ___
9. I drew on my past experiences; I was in a similar position before ___
10. I focused on dealing with this problem and, if necessary, let other things slide a little ___
11. I changed or grew as a person in a good way ___
12. I wished that the situation would go away or somehow be over with ___
13. I refused to believe that it had happened ___
14. I made a promise to myself that things would be different next time ___
15. I criticized or lectured myself ___
16. I avoided being with people in general ___
17. I hoped a miracle would happen ___
18. I realized I brought the problem on myself ___
APPENDIX F

ATHLETE SATISFACTION QUESTIONNAIRE

Instructions: Please respond honestly and spontaneously. Do not think about any one item for too long. For each question, indicate the extent to which you are satisfied with the content of each item. If you do not (did not) elect to use a particular service such as tutoring, medical services or academic advising, please indicate the extent to which you are satisfied with the quality of services available to you.

Note: Participants were asked to rate their responses from 1-7 with 1 = not satisfied; 2 = satisfied very little; 3 = somewhat satisfied; 4 = moderately satisfied; 5 = generally satisfied; 6 = satisfied a great deal; 7 = extremely satisfied.

1. How the team works
2. My social status on the team
3. The coach’s choice of plays during competitions
4. The competence of the medical personnel
5. The degree to which I do (did) my best for the team
6. The degree to which I have reached my performance goals during season
7. The degree to which my abilities are (were) used
8. The extent to which all team members are (were) ethical
9. The extent to which teammates provide (provided) me with instruction
10. The funding provided to my team
11. The media’s support for our program
12. The recognitions I receive (received) from my coach
13. The team’s win/loss record this season
14. The training I receive (received) from the coach during the season
15. The tutoring I receive (received)
16. My dedication during practices
17. My teammates’ sense of fair play
18. The academic support services provided
19. The amount of money spent on my team
20. The degree to which teammates share (shared) the same goal
21. The fairness with which the medical personnel treats all players
22. The friendliness of the coach towards me
23. The guidance I receive (received) from my teammates
24. The improvement in my performance over the previous season
25. The instruction I have received from the coach this season
26. The level to which my talents are (were) employed
27. The role I play (played) in the social life of the team
28. The support from the university campus
29. The tactics used during competitions
30. The team’s overall performance this season
31. Coach’s choice of strategies during competitions
32. My enthusiasm during competitions
33. My teammates’ ‘sportsmanlike’ behavior
34. Team member’s dedication to work together toward team goals
35. The coach’s teaching of the tactics and techniques of my position or event
36. The constructive feedback I receive (received) from my teammates
37. The degree to which my teammates accept (accepted) me on a social level
38. The extent to which my role matches (matched) my potential
39. The extent to which the team is meeting (has met) its goals for the season
40. The fairness of the team’s budget
41. The improvement in my skill level
42. The level of appreciation my coach shows (showed) when I do (did) well
43. The medical personnel’s interest in the athletes
44. The personnel of the academic support services (tutors, counselors, etc).
45. The supportiveness of the fans
46. How the coach makes (made) adjustments during competitions
47. My coach’s loyalty towards me
48. My commitment to the team
49. The amount of time I play (played) as a team
50. The extent to which teammates play (played) as a team
51. The local community’s support
52. The promptness of medical attention
53. Coach’s game plans/approach to competitions
54. The degree to which my role on the team matches (matched) my preferred role
55. The extent to which the coach is (was) behind me
56. The manner in which coach combines (combined) that available talent
REFERENCES


Maddi, S. R. (1986). *The great stress-illness controversy*. Presidential address to Division 1 (General Psychology) at the annual meeting of the American Psychological Association, Washington, DC.


BIOGRAPHICAL SKETCH

Jaime La Farr Jenkins was born on October 20th, 1976, in Saratoga Springs, New York to Sylvia and Richard La Farr. She graduated from Saratoga Springs High School with honors in June 1994. In August 1994 she came to the University of Florida on a partial track and field athletic scholarship. After 4 years as a student athlete and earning her BS in exercise and sport science in August 1998, she began graduate school in the Department of Counselor Education. During her years as a graduate student, she held a position with the Sexual and Physical Abuse Resource Center, and provided counseling services to children and families at the Pediatrics Clinic at Shands Hospital in Gainesville. She was an intern with a private practice that provided both counseling and medical services to clients of all ages. Jaime volunteered her services providing crisis intervention over the phone for the Alachua County Crisis Center from 1997 to 1999. In December 2000, she graduated with her M.Ed. and Ed.S. in counselor education from the University of Florida. The next day she was married to her husband, Randall Carter Jenkins, and moved to Crystal River where he was employed at Citrus Memorial Hospital. Jaime commuted to Gainesville to work full time with the Corner Drug Store, a nonprofit organization that provided counseling services to adolescents and families with substance related issues. In fall of 2001, she started the doctoral program in the Counselor Education Department at the University of Florida. In May 2003, she gave birth to a daughter, Lindsay. She returned to work full time in August 2003 for the University of Florida as an academic advisor for walk-on student athletes and the general
student body within the College of Liberal Arts and Sciences. Under the tutelage of Sherry Kitchens, Ed.S., LMFT, she became a licensed mental health counselor in August 2004.