

University of Denver

Digital Commons @ DU

---

Electronic Theses and Dissertations

Graduate Studies

---

8-1-2018

## College Athletes and Romantic Relationship Conflict: The Moderating Effects of Sport-Relationship Conflict and Enrichment

Keaton Clauss Muzika  
*University of Denver*

Follow this and additional works at: <https://digitalcommons.du.edu/etd>



Part of the [Counseling Psychology Commons](#)

---

### Recommended Citation

Muzika, Keaton Clauss, "College Athletes and Romantic Relationship Conflict: The Moderating Effects of Sport-Relationship Conflict and Enrichment" (2018). *Electronic Theses and Dissertations*. 1511.  
<https://digitalcommons.du.edu/etd/1511>

This Dissertation is brought to you for free and open access by the Graduate Studies at Digital Commons @ DU. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of Digital Commons @ DU. For more information, please contact [jennifer.cox@du.edu](mailto:jennifer.cox@du.edu), [dig-commons@du.edu](mailto:dig-commons@du.edu).

---

# College Athletes and Romantic Relationship Conflict: The Moderating Effects of Sport-Relationship Conflict and Enrichment

## Abstract

Relationships that college athletes develop outside of their sports have the potential to positively and negatively impact sport, relationship, and mental health outcomes. Existing research focuses on the importance of the coach-athlete, parent-athlete, and athlete-athlete dyads and suggests that these relationships affect athletes' satisfaction and commitment to sport. However, few studies examine the influence of romantic relationships on these outcomes. This study, which is founded on work-family conflict and enrichment theories, used an experimental design to examine the moderating effects of sport-relationship conflict and enrichment on the relationship between romantic relationship conflict and athlete burnout, sport commitment, depression, and perceived respect from romantic partner (relationship respect). Division I college athletes (N = 114) were randomly assigned to one of two conditions. In the experimental condition, participants were primed for relationship conflict, while participants in the control condition were given a neutral prime. Results of hierarchical linear regression analyses indicated that sport-to-relationship conflict moderated the effect of relationship conflict on athlete burnout. The nature of the moderation was unanticipated; for participants with higher levels of sport-to-relationship conflict being primed for relationship conflict was associated with lower levels of burnout than being in the control condition. Results also revealed that athlete burnout and sport commitment were predicted by sport-to-relationship and relationship-to-sport conflict and enrichment. Depression was predicted by sport-to-relationship enrichment, and relationship respect was predicted by relationship-to-sport conflict and enrichment.

## Document Type

Dissertation

## Degree Name

Ph.D.

## Department

Counseling Psychology

## First Advisor

Jesse Owen, Ph.D.

## Second Advisor

Jennifer E. Cornish, Ph.D.

## Third Advisor

Patton Garriott

## Keywords

Burnout, Relationship conflict, Romantic relationships, Sport-relationship conflict, Sport-relationship enrichment, Student athletes

## Subject Categories

Counseling Psychology | Psychology | Social and Behavioral Sciences

---

**Publication Statement**

Copyright is held by the author. User is responsible for all copyright compliance.

COLLEGE ATHLETES AND ROMANTIC RELATIONSHIP CONFLICT: THE  
MODERATING EFFECTS OF SPORT-RELATIONSHIP CONFLICT AND  
ENRICHMENT

---

A Dissertation

Presented to

the Faculty of the Morgridge College of Education

University of Denver

---

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

---

by

Keaton Clauss Muzika

August 2018

Advisor: Dr. Jesse Owen

©Copyright by Keaton Clauss Muzika 2018

All Rights Reserved

Author: Keaton Clauss Muzika

Title: COLLEGE ATHLETES AND ROMANTIC RELATIONSHIP CONFLICT: THE MODERATING EFFECTS OF SPORT-RELATIONSHIP CONFLICT AND ENRICHMENT

Advisor: Dr. Jesse Owen

Degree Date: August 2018

## ABSTRACT

Relationships that college athletes develop outside of their sports have the potential to positively and negatively impact sport, relationship, and mental health outcomes. Existing research focuses on the importance of the coach-athlete, parent-athlete, and athlete-athlete dyads and suggests that these relationships affect athletes' satisfaction and commitment to sport. However, few studies examine the influence of romantic relationships on these outcomes. This study, which is founded on work-family conflict and enrichment theories, used an experimental design to examine the moderating effects of sport-relationship conflict and enrichment on the relationship between romantic relationship conflict and athlete burnout, sport commitment, depression, and perceived respect from romantic partner (relationship respect). Division I college athletes ( $N = 114$ ) were randomly assigned to one of two conditions. In the experimental condition, participants were primed for relationship conflict, while participants in the control condition were given a neutral prime. Results of hierarchical linear regression analyses indicated that sport-to-relationship conflict moderated the effect of relationship conflict on athlete burnout. The nature of the moderation was unanticipated; for participants with higher levels of sport-to-relationship conflict being primed for relationship conflict was associated with lower levels of burnout than being in the control condition. Results also revealed that athlete burnout and sport commitment were predicted by sport-to-

relationship and relationship-to-sport conflict and enrichment. Depression was predicted by sport-to-relationship enrichment, and relationship respect was predicted by relationship-to-sport conflict and enrichment.

## TABLE OF CONTENTS

Definition of Key Terms .....	1
Chapter 1: Literature Review .....	3
Relationship Conflict .....	5
Athletes and Romantic Relationships .....	7
Work (Sport)-Family Interface .....	10
Work (Sport)-Family Conflict .....	10
Work (Sport)-Family Enrichment .....	16
Model of Current Study .....	20
Proposed Outcomes .....	22
Athlete Burnout .....	22
Sport Commitment .....	23
Depression.....	25
Respect.....	26
Research Questions and Hypotheses .....	28
Chapter 2: Methodology .....	38
Participant Demographics .....	38
Measures .....	41
Procedure .....	48
Statistical Analysis.....	50
Chapter 3: Results .....	52
Preliminary Analysis.....	52
Normality of the Data .....	52
Descriptive Statistics.....	52
Correlation of Study Variables .....	54
Manipulation Check.....	55
Analysis of Research Hypotheses.....	56
Chapter 4: Discussion .....	84
Manipulation Check.....	84
Main Hypothesis Findings .....	85
Relationship Conflict .....	85
Sport-Relationship Conflict .....	86
Sport-Relationship Conflict Moderation.....	89
Sport-Relationship Enrichment.....	91
Sport-Relationship Enrichment Moderation .....	93
Limitations .....	94
Implications.....	95
Practical Implications.....	95
Research Implications.....	97



Future Research .....	98
Conclusion .....	99
References .....	100
Appendices.....	114
Appendix A: Demographics .....	114
Appendix B: Role Saliency Items.....	116
Appendix C: Relationship Conflict.....	117
Appendix D: Sport-Relationship Conflict .....	118
Appendix E: Sport-Relationship Enrichment .....	119
Appendix F: Vignette: Relationship Conflict .....	120
Appendix G: Vignette: Neutral.....	121
Appendix H: Personal Relevance Items .....	122
Appendix I: Shortened Version of the Profile of Mood States (SV-POMS); Anger and Anxiety.....	123
Appendix J: Negative Spillover.....	124
Appendix K: Athlete Burnout Questionnaire (ABQ) .....	125
Appendix L: Sport Commitment Model.....	126
Appendix M: Shortened Version of the Profile of Mood States (SV-POMS): Depression.....	127
Appendix N: Respect for Partner Scale .....	128
Appendix O: Rumination Items.....	129
Appendix P: Informed Consent .....	130
Appendix Q: Sample Recruitment Email Coaches.....	132
Appendix R: Sample Recruitment Email Athletes .....	133

## LIST OF TABLES

Chapter 2 .....	38
Table 1. Participant Demographics .....	39
Chapter 3 .....	52
Table 2. Means and Standard Deviation of Study Variables .....	53
Table 3. Intercorrelations of Study Variables .....	55
Table 4. Regression Model of Relationship Conflict Prime, SRC, and Athlete Burnout .....	57
Table 5. Regression Model of Relationship Conflict Prime, RSC, and Athlete Burnout .....	59
Table 6. Regression Model of Relationship Conflict Prime, SRE, and Athlete Burnout .....	60
Table 7. Regression Model of Relationship Conflict Prime, RSE, and Athlete Burnout .....	61
Table 8. Regression Model of Relationship Conflict Prime, SRC, and Sport Commitment (Enjoyment).....	63
Table 9. Regression Model of Relationship Conflict Prime, SRC, and Sport Commitment (support) .....	63
Table 10. Regression Model of Relationship Conflict Prime, RSC, and Sport Commitment (Enjoyment).....	65
Table 11. Regression Model of Relationship Conflict Prime, RSE, and Sport Commitment (Support) .....	65
Table 12. Regression Model of Relationship Conflict Prime, SRE, and Sport Commitment (Enjoyment).....	66
Table 13. Regression Model of Relationship Conflict Prime, SRE, and Sport Commitment (Support) .....	67
Table 14. Regression Model of Relationship Conflict Prime, RSE, and Sport Commitment (Enjoyment).....	68
Table 15. Regression Model of Relationship Conflict Prime, RSE, and Sport Commitment (Support) .....	68
Table 16. Regression Model of Relationship Conflict Prime, SRC, and Depression .....	70
Table 17. Regression Model of Relationship Conflict Prime, RSC, and Depression .....	71
Table 18. Regression Model of Relationship Conflict Prime, SRE, and Depression .....	72
Table 19. Regression Model of Relationship Conflict Prime, RSE, and Depression .....	73
Table 20. Regression Model of Relationship Conflict Prime, SRC, and Respect .....	75
Table 21. Regression Model of Relationship Conflict Prime, RSC, and Respect .....	76
Table 22. Regression Model of Relationship Conflict Prime, SRE, and	

Respect .....	77
Table 23. Regression Model of Relationship Conflict Prime, RSE, and Respect .....	78
Table 24. Hypotheses Summary.....	79

## DEFINITION OF KEY TERMS

Work-family conflict (WFC): “A form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible in some respect” (Greenhaus & Beutell, 1985, p. 77).

Work-to-family conflict: Interrole conflict in which role pressures from the work domain negatively interfere or impact the family domain (Greenhaus & Beutell, 1985).

Family-to-work conflict: Interrole conflict in which role pressures from the family domain negatively interfere or impact the work domain (Greenhaus & Beutell, 1985).

Work-family enrichment (WFE): “The extent to which experiences in one role improve the quality of life in the other role” (Greenhaus & Powell, 2006, p. 73).

Work-to-family enrichment: The extent to which work experiences improve the quality of life in the family role (Greenhaus & Powell, 2006).

Family-to-work enrichment: The extent to which family experiences improve the quality of life in the work role (Greenhaus & Powell, 2006).

Sport-relationship conflict: Interrole conflict in which pressures from the sport and relationship domains are incompatible and negatively interfere or impact one another.

Sport-to-relationship conflict (SRC): Interrole conflict in which pressures from the sport domain negatively impact or interfere with the romantic relationship domain.

Relationship-to-sport conflict (RSC): Interrole conflict in which pressures from the romantic relationship domain negatively impact or interfere with the sport domain.

Sport-relationship enrichment: The extent to which experiences in the sport and relationship roles improve one another.

Sport-to-relationship enrichment (SRE): The extent to which experiences in the sport domain improve the quality of the relationship domain.

Relationship-to-sport enrichment (RSE): The extent to which experiences in the relationship domain improve the quality of the sport domain.

Romantic relationship/romantic partner/partner: In this study, these terms refer to a relationship with a romantic partner with whom one is dating, cohabitating, engaged, or married.

## CHAPTER ONE: LITERATURE REVIEW

There are approximately 420,000 National College Athletic Association (NCAA) student-athletes and approximately 173,000 Division I student-athletes (NCAA, 2015). College athletes experience stressors and pressures that are unique to their student-athlete status. For example, college athletes must balance the demands of sports practice and competition, which often involves significant travel, with full time academic schedules, social relationships, and the standard environmental challenges associated with being a college student (Brougham, Zail, Mendoza, & Miller, 2009; Kimball, 2007). Most student-athletes spend at least 30 hours per week training, practicing, competing, or traveling (Brown, 2014), which limits their autonomy (Benford, 2007) and leaves little time for academic success (Coakley, 2007, in Chen, Snyder, & Magner, 2010) or to develop interpersonal relationships outside of sport (Kimball, 2007). Nonetheless, within their rigorous and inflexible schedules, college athletes are expected to balance interpersonal, romantic, and parental relationships (Watson & Kissinger, 2007).

In addition to balancing these demands, college athletes experience performance-related stress and other pressures in both their athletic and academic environments (Benford, 2007). Multiple role demands coupled with performance-related pressures may result in negative outcomes such as burnout, reduced performance, injury (HowardHamilton & Sina, 2001), psychological distress, and maladjustment (Watson, 2005). Some studies show that participation in college athletics is linked to depression

(Coakley, 2007, in Chen, Snyder, & Magner, 2010 Jolly, 2008), stress (Jolly, 2008), eating disorders (Greenleaf, Petrie, Carter, & Reel, 2009), gambling, and alcohol use (Bacon & Russell, 2004). Indeed, approximately 10 to 15 percent of college athletes experience psychological problems that warrant treatment. Additionally, the public nature of college sports, particularly among high profile sports and teams, adds additional pressure and stress for student-athletes to succeed across multiple domains (Watson, 2005).

Despite the many challenges faced by college athletes, there are a number of positive gains associated with participation in college athletics. For example, being part of a college sport team provides a social network (Melendez, 2007) and a sense of support on campus (Watson, 2005; Watson & Kissinger, 2007). This support helps student-athletes adjust to college life. Additionally, participation in college athletics helps foster confidence, self-esteem, conflict management skills, leadership skills, interpersonal skills (Melendez, 2007), and is associated with increased physical health (Watson, 2005; Watson & Kissinger, 2007). Although research is inconsistent, some studies also show that student-athletes have lower levels of depression than their non-athlete counterparts (Armstrong & Oomen-Early, 2009). These gains may result in positive behavioral and affective transfers from the sport domain to relational domains.

The culture of Division I college athletics is one of schedule inflexibility, reduced autonomy, and increased pressure and stress. These characteristics have been identified in work-family interface literature as antecedents of work-family conflict (WFC) and work-

family enrichment (WFE), which are described in the sections that follow<sup>1</sup>. Athletic and professional environments share many commonalities. For example, an athlete's league or division dictates non-negotiable game schedules and coaches dictate training and practice schedules. Similarly, workplaces and supervisors commonly dictate the schedules of their employees. Furthermore, the effort and time required to play a Division I college sport is similar to that of a part- or full-time employee. Jobs offer financial rewards, recognition, and satisfaction; and similarly college athletics offers scholarships, accolades for performance, and sport-related satisfaction. The commonalities between employment and participation in Division I college athletics suggests that Division I college athletes may experience the phenomena of WFC and WFE. In this study, these phenomena, as they apply to athletes and their romantic relationships, will be referred to as sport-relationship conflict and sport-relationship enrichment.

### **Relationship Conflict**

The majority of emerging adults (meaning those that are between the age of 18 and 25) have been in a serious romantic relationship (Stanley, Rhoades, and Fincham, 2011) and college students consider romantic relationships as a top priority and concern (LeSure-Lester, 2001). One aspect of emerging adults' relationships that is of particular importance is conflict (Fincham & Beach, 2010). Gordon and Chen (2016) assert that conflict is inevitable in romantic relationships. According to Fincham, (2003), “[m]arital conflict refers to overt opposition between spouses that is identified by the spouses as disagreement or a source of difficulty in the relationship” (p. 298). When conflicts are

---

<sup>1</sup> When referring to both work-to-family conflict and family-to-work conflict simultaneously, this paper will use the general term work-family conflict (WFC). When referring to both work-to-family enrichment and family-to-work enrichment simultaneously, this paper will use the general term work-family enrichment (WFE).



typified by negative behaviors including hostility, aggression, or withdrawal, they may be detrimental to relationships (Gill, Christensen, & Fincham, 1999); however, when conflict is met with positive behavior like effective problem solving or affection, they may have positive effects on relationships (Campbell, Martin, & Ward, 2008). College athletes experience considerable stressors (e.g., pressure to perform, balancing multiple roles and relationships) that may lead to relationship conflict and negatively impact their ability to cope with and manage such conflict. When not managed well, relationship conflict has been associated with eating disorders, binge drinking, male alcoholism, chronic pain, cancer and cardiac disease (Fincham, 2003), depression and anxiety symptoms (Fincham, 2003; Roberson, et al., 2015; Whisman & Uebelacker, 2009) domestic violence, relationship termination, as well as reduction in marital satisfaction, (Karney & Bradbury, 1995; Stanley, Markman, & Whitton, 2002; Stith, Smith, Penn, Ward, & Tritt, 2004).

Relationship conflict has also been linked to work related outcomes. In their meta-analysis on WFC and satisfaction, Ford, Heinen, and Langkamer (2007) found a significant negative correlation between family conflict – including relationship/marital conflict – and job satisfaction. This study indicates that there may be a direct link between conflict within romantic partner dyads and job satisfaction. Consequently, individuals who experience more conflict between work and family roles are more likely to experience burnout than those who do not experience such conflict (Allen, et al., 2000; Cinamon, et al., 2007; Greenhaus et al., 2006).

## **Athletes and Romantic Relationships**

College athletes manage multiple interpersonal relationships with coaches, parents, teammates, peers, and at times romantic partners. There is a significant amount of research that examines the impact of the coach-athlete, parent-athlete, and athlete-teammate relationships, which generally suggest that these relationship dyads impact athletes' wellbeing, commitment, and athletic performance in a number of ways (Donohue, Miller, Crammer, Cross, & Covassin, 2007; Jowett & Cramer, 2009). Fewer studies examine the impact of romantic relationships on sport-related outcomes, or the impact of sport participation on romantic relationships. Romantic relationships have the potential to impact athletes' performance and wellbeing in similar ways to that of a coach or parent (Campbell, Hosseini, Meyers, & Calub, 2016). Because the experiences of athletes in one domain can impact their experience in other domains (Iso-Ahola, 1995), it is important to understand the influence of romantic relationships on sport outcomes, and the impact of sport participation on relationship outcomes.

Literature regarding the impact of sport participation on relationships is generally limited to aggression (see Forbes et al., 2006; Young, Desmarais, Baldwin, & Chandler, 2016). However, there are some examples outside of this domain. For instance, Jowett (2007) examined the quality of romantic relationships (dating to married) of 83 professional athletes. She examined the associations between relationship quality and relationship satisfaction, sacrifice, empathy, depression, athlete performance satisfaction, and athlete dedication satisfaction. The results revealed that athletes and their romantic partners were generally satisfied with their relationships and viewed their relationships as having high levels of empathy, communication, closeness, and positive communication,

and low levels of unbalanced dominance and hostility. Additionally, empathy and willingness to make sacrifices for the sake of the relationship contributed to relationship satisfaction. However, relationship quality was not significantly correlated with athletes' performance satisfaction or athletes' satisfaction with their dedication to sport. The lack of association between relationship quality and sport outcomes may be because relationship qualities alone do not impact sport outcomes; however, the presence or absence of SRC and SRE coupled with specific relationship qualities may.

Campbell et al. (2016) also examined the influence of romantic relationships on athlete performance, specifically focusing on the ways in which romantic passionate love impacted 20 Olympic athletes' perceptions of their athletic performances. The athletes were approached before participating in the Olympics and asked if they have been in love and whether their performance was better or worse when they were in love. The majority of the athletes reported that their performance was better when they were in love, explaining that their partners helped manage chores, pressure, and childcare. Moreover, athletes referred to their partners and children as sources of motivation towards high achievement in their sport. This study highlights the self-perceived benefits of romantic relationships on athletic performance and the ways in which support and motivation is transferred from relationships to sport. Additional studies have highlighted the importance Swedish student-athletes place on interpersonal support from their significant others and peers (Bengtsson & Johnson, 2012), supporting the notion that relationships are important aspects of athletes lives.

Other studies have suggested that romantic relationships may negatively impact athletes. For example, Kjormo and Halvari (2002) investigated the relationship between

role conflict, availability to spend time with significant others (i.e., family and friends) and athlete burnout among Norwegian, Olympic-level athletes. The results demonstrated that athlete burnout was significantly positively correlated with role conflict and lack of time to spend with significant others.

Using a WFC framework, Jowett and Cramer (2009) examined whether negative spillover mediates the association between relationship qualities (i.e., communication, interpersonal trust, relationship commitment, and hostile interactions) and depression and sport performance satisfaction among 87 male and female athletes competing at a national or international level. The authors conceptualized spillover as “negative feelings, attitudes, and behaviors that might emerge in one domain and are carried over into another” (p. 60). The results of structural equation modeling (SEM) revealed that negative spillover mediates the association between relationship commitment and hostile interactions and sport performance satisfaction, and depression. That is, when spillover occurs it serves as the mechanism through which relationship commitment and hostile interactions impact sport performance satisfaction and depression. Therefore, when spillover occurs athletes are more likely to experience depression and less likely to experience sport performance satisfaction. Although this study aids in understanding the impact of relationships on sport performance satisfaction and depression, it neglects the positive impact relationships can have on sport-related outcomes. Additionally, this study examines the concept of negative spillover using three items, which ignores the multidimensional nature of WFC (e.g., time, strain, and affect based).

Considering the findings that suggest romantic relationships impact athlete outcomes (e.g., Campbell et al., 2016; Jowett & Cramer, 2009; Kjormo & Halvari, 2002)

and the vast impact of coaches, parents, and teammates on the wellbeing, satisfaction, and commitment of athletes, it is important to further examine and understand the unique impact romantic relationships have on sport outcomes and the impact sport participation has on romantic relationships. Although the above mentioned studies contribute to understanding the ways in which romantic relationships impact athletes, the results of these studies are not generalizable to college student-athletes. The majority of the populations utilized in these studies are international, Olympic, or professional level athletes who, unlike college student-athletes are often sponsored or paid and likely do not have to balance athletics and academics. The present study extends sport psychology and romantic relationship literature by examining college student-athletes' romantic relationships.

### **Work (Sport)-Family Interface**

The premise of the work-family interface is founded in role theory (Greenhaus & Beutell, 1985; Kahn, 1964). Role theory asserts that people may occupy a number of different roles at various times and switch back-and-forth between roles without concern for how engagement in one role might affect the other (Kanter, 1997). Work-family scholars determined that engagement in several roles has the potential to both negatively (conflict) or positively (enrichment) impact one or more roles. The present study applies models of WFC and WFE to college athletes and their romantic relationships, conceptualizing sport as a form of work and romantic relationships as a family domain.

#### **Work (sport)-family conflict.**

Work-family conflict is rooted in role conflict theory, defined by Kahn (1964) as the “simultaneous occurrence of two or more sets of pressures such that compliance with

one would make more difficult compliance with the other” (p. 19). That is, people have a limited amount of resources and energy that can be devoted to a specific role (Edwards & Rothbard, 2000; Kahn, 1964). In their meta-analysis on WFC and satisfaction, Ford, Heinen, and Langkamer (2007) found a significant negative correlation between family conflict – including relationship conflict – and job satisfaction. This study indicates that there may be a link between conflict within romantic partner dyads and job outcomes. Scholars conceptualize WFC as having a bidirectional, reciprocal nature in that the work domain can conflict and interfere with the family domain, which is known as work-to-family conflict; and the family domain can conflict and interfere with the work domain, which is known as family-to-work conflict (Frone et al., 1997; Frone, Russell, & Cooper, 1992; Greenhaus & Beutell, 1985). College athletes experience role conflict regularly as they navigate between their roles as athletes, students, friends, and family members (Kimball, 2007).

In their review of WFC literature, Greenhaus and Beutell (1985) identified three main forms of WFC: time-based, strain-based, and behavior based conflict. Time-based conflict occurs when family and work roles compete for a person’s time. Time that is allocated for work generally cannot be spent on family engagements and vice versa (Greenhaus & Beutell, 1985). The perception of time-based conflict between work and family roles increases as the number hours spent in each role increases. Time-based conflict is divided into two types (Greenhaus & Beutell, 1985). First, the time spent engaging in one role makes it impossible to fulfill expectations in the other role. For example, time constraints related to the dual role of a college athlete occurs when a student has to miss her partner’s birthday to attend a competition out of state. The

student-athlete cannot be two places at once and thus has to choose one role at the expense of the other. The second type occurs when pressure from one role leads to preoccupation about that role when one is physically engaged in the other role (Bartolome & Evans, 1979 in Greenhaus & Beutell, 1985). This type of time-based conflict may occur when an athlete has to travel to a competition but is concerned about how missing his partner's birthday will affect his relationship. Student-athletes spend approximately 30 hours per week on sport-related activities (Brown, 2014) so it is likely that they experience time-based conflicts between their roles as an athletes, students, partners, friends, and family members.

Strain-based conflict occurs when stress produced in one role impacts engagement or performance in the other role (Greenhaus & Beutell, 1985). Stressors from both work and family domains may produce strain, which includes symptoms such as irritability, fatigue, tension, anxiety, and depression (Brief, Schuler, & an Sell, 1981 in Greenhaus & Beutell, 1985). For example, strain-based sport-to-relationship conflict may occur when an athlete experiences negative affect after being benched from his starting position. The athlete's negative affect transfers to his relationship and manifests as acting negatively towards his partner.

Behavior-based conflict occurs when specific behaviors in one role are incompatible with behaviors or expectations in another role (Greenhaus & Beutell, 1985). If individuals are unable to modify their behaviors to conform to both roles, behavior-based conflict will occur. In the context of sport and relationships, behavior-based conflict may occur when an athlete is unable to effectively "turn off" aggressive

behaviors, which are essential to sport competition, when in the context of a romantic relationship.

*Correlates of WFC.* There are a handful of meta-analyses that have examined correlates of WFC concluding that WFC is significantly correlated with work, family, and relationship variables, as well as overall well-being and mental health outcomes (e.g., Allen, Herst, Bruck, & Sutton, 2000; Amstad et al., 2011; Ford, Heinen, & Langkamer, 2007; Kossek & Ozeki, 1998). The outcomes examined in the current study are athlete burnout, sport commitment, depression, and perceived respect from partner.

*Work related correlates.* In their meta-analysis, Allen and colleagues (2000) examined 67 articles (majority cross-sectional and non experimental) published between 1977 and 1998 that quantitatively measured the relationship between work-to-family conflict and variables that are theoretically considered outcomes of work-to-family conflict. The measurement of work-to-family conflict and the samples (working adults, working mothers, working fathers, accountants, nurses, teachers, executives, police officers, parents, graduate students) used in the articles varied substantially. Information about race and ethnicity were not included in the meta-analysis. For articles in the meta-analysis that described separate correlations for various subgroups (e.g., men and women) the authors combined subgroups of populations and computed one effect size. The results of Allen et al.'s (2000) meta-analysis suggest that job satisfaction ( $r = -.24$ ), and organizational commitment ( $r = -.23$ ) are negatively associated with work-to-family conflict, and burnout is positively associated ( $r = .42$ ). The majority of the studies cited in this meta-analysis that examined organizational commitment, measured affective commitment. Affect commitment refers to emotional connections and identification with



an organization through positive experiences (Meyer & Allen, 1984), and shares commonalities with the attraction domain of sport commitment.

In a more recent meta-analysis, Amstad et al. (2011) examined 98 articles (majority cross-sectional and non experimental) published between 1999 and 2006 (427 effect sizes) that quantitatively investigated the outcomes associated with work-to-family and family-to-work conflict. The samples in the articles consisted of primarily North American, Caucasian, married, working participants who had children and lived in dual earner households. Based on effect sizes, the data showed that work-to-family and family-to-work conflict are significantly negatively correlated with organizational citizenship behavior (e.g., voluntary commitment to an organization;  $r = -.63$  and  $r = -.52$  respectively) and work satisfaction ( $r = -.26$  and  $r = -.13$  respectively), and significantly positively correlated with burnout ( $r = .38$  and  $r = .27$  respectively). That is, individuals who experience WFC report higher levels of work burnout and lower levels of work satisfaction and organizational commitment than individuals who do not experience WFC. In addition to direct effects, Amstad et al. (2011) examined the moderating effects of parenthood and hours at work on the relationship between WFC and work-related outcome variables; however, neither of these moderators had significant effects. Similarly, in the only study that has examined WFC among athletes, Jowett and Cramer (2009) found that negative spillover was negatively correlated with elite level athletes' self-report of performance satisfaction.

In an individual study, Qu and Zhao (2012) examined the moderating effect of WFC on the relationship between life satisfaction and job satisfaction among sales managers in China. The results of this study suggest that low levels of WFC strengthen

the relationship between life satisfaction and job satisfaction. In other words, when WFC is low, employees with high levels of life satisfaction will experience greater job satisfaction. This study suggests that WFC may explain the conditions through which domains outside of work impact work.

*Relationship and mental health correlates.* WFC is also correlated with relationship related variables. Meta-analyses reveal that there is a negative correlation between work-to-family conflict  $r = -.23$  (Allen et al., 2000) and family-to-work conflict  $r = -.29$  (Amstad et al., 2011) and marital satisfaction (including marital adjustment), suggesting that as WFC increases marital satisfaction decreases. Additionally, overall family satisfaction, which includes variables such as marital satisfaction and childcare satisfaction, is negatively correlated with work-to-family conflict (Ford et al., 2007). The associations between WFC and relationship satisfaction are relevant to this study because previous research shows that there is a positive association between relationship satisfaction and respect in romantic relationships (Frei & Shaver, 2002; Hendrick & Hendrick, 2006; Owen, Quirk, & Manthos, 2012).

Although meta-analyses suggest that there is a significant relationship between WFC and marital satisfaction, the results of individual studies tend to vary (Allen, et al., 2000). The variability is likely due to differences in measurement of WFC and the presence of moderator variables (Allen, et al., 2000), as hours spent at work moderates the relationship between WFC and family-related outcomes (e.g., marital satisfaction and family strain; Amstad et al., 2011). That is, the relationship between WFC and family-related outcomes is stronger for individuals with “above average” working hours. Working hours is an important variable to consider with regard to Division I college

athletes who spend the majority of their time on their sport (Brown, 2014). Time spent in sport coupled with time devoted to academics and other jobs may vastly influence the way SRC impacts relationship outcomes.

In regard to WFC and depression, meta-analyses also show that WFC is positively correlated with depression with effect sizes ranging from  $r = .23$  to  $.32$  (Allen et al., 2000; Amstad et al., 2011). In an individual study, Jowett and Cramer (2009) concluded that negative spillover is positively correlated with athletes' self-report of depression. Athletes who experience high levels of SRC may experience depressive symptoms which can impact their sport (Beedie, Terry, & Lane, 2000) and academic performance (Hysenbegasi, Hass, & Rowland, 2005).

#### **Work (sport)-family enrichment.**

Scholars refer to the positive impact of the family domain on the work domain and the positive impact of the work domain on the family domain as work-family enrichment (WFE). WFE is "the extent to which experiences in one role improve the quality of life in the other role" (Greenhaus & Powell, 2006, p. 73). This definition is rooted in Sieber's (1974) theory of role accumulation and Marks' (1977) expansionist approach. Sieber's (1974) theory generally posits that the engagement in multiple roles allows for the acquisition of multiple recourses that can be utilized in alternative roles. Similarly, Marks (1977) proposed that engagement in certain roles produces energy and positive affect that can be utilized to improve involvement in other roles. Like WFC, WFE is bidirectional in that work may positively impact family life and family may positively influence work. Greenhaus and Powell (2006) proposed that WFE occurs when resources (material, skills, flexibility, social-capital, psychological, and physical)

acquired in role A either directly (instrumental pathway) or indirectly (affective pathway) improve affect or performance in role B. For college athletes in romantic relationships, the instrumental pathway to enrichment may occur when athletes learn patience from their partners, which could translate to being more patient with teammates. An athlete who experiences a peak sport performance that results in having a positive mood and translates into positive communication with their partner is an example of the affective pathway.

Carlson et al. (2006) identified three dimensions of work-to-family enrichment (i.e., capital, affect, and development) and three dimensions of family-to-work enrichment (i.e., affect, development, and efficiency). Work-family capital refers to psychological recourses gained or promoted through work that help an individual improve as a family member (Carlson, et al., 2006). For athletes in romantic relationships this may occur when teammate support is gained through sport and is used to improve one's relationship. Work-family affect occurs when involvement in work promotes positive emotional states that help individuals improve in their family domain. For example, athletes may experience feelings of accomplishment through participation in sport leading to feelings of happiness, which impacts their romantic relationships when they are more kind to their partners. The final dimension is work-family development, which signifies the development of skills, behaviors and knowledge in work that translate to improvements as a family member. College athletes gain a number of skills through their sport; in particular, they may learn stress management skills that transfer to their romantic relationship.

The family-to-work enrichment affect and development dimensions parallel the work-family dimensions described above. The family-to-work efficiency dimension refers to ways in which involvement in family promotes efficiency or a sense of urgency among an individual that leads to improvements in the work domain. For example, in effort to make more time to spend with their partners, athletes may utilize their time in the gym more efficiently.

### ***Correlates of WFE.***

*Work related correlates.* In their meta-analysis McNall, Nicklin, and Nasydam (2010) analyzed 46 studies published between 1995 and 2008 that examined 101 correlations between WFE and work, family, and health related outcome variables. In their analysis, variables similar to WFE (e.g., positive spillover and work-family facilitation) were collapsed into one WFE variable. The authors reported separate effect sizes for men and women. The majority of the studies analyzed were cross sectional; however, for the few longitudinal studies the authors averaged together multiple data points resulting in one correlation per study. Results of the meta-analysis suggest that work-to-family and family-to-work enrichment are positively related to job satisfaction ( $r = .34$  and  $r = .20$  respectively) and affective organizational commitment ( $r = .35$  and  $r = .24$  respectively; McNall, Nicklin, & Nasydam 2010). Moderation variables were also examined in this analysis revealing that the relationship between both work-to-family and family-to-work enrichment and job satisfaction was stronger among samples of women and in studies that examined the construct of enrichment and positive spillover.

Results of individual studies suggest that work-to-family facilitation (a concept similar to WFE) is negatively correlated with burnout (Innstrand, Langbelle, Espnes, &

Aasland, 2008). Additionally, among college coaches, work-to-family and family-to-work enrichment are significantly correlated with life satisfaction, and work-to-family enrichment is significantly correlated with career satisfaction (Schenewark & Dixon, 2012).

*Relationship and mental health correlates.* In their meta-analysis, McNall et al. (2010) found that work-to-family and family-to-work enrichment are positively related to family satisfaction, with effect sizes of  $r = .14$  and  $r = .43$  respectively. Generally, as WFE increases so does family satisfaction. Gender moderated the relationship between work-to-family enrichment and family satisfaction – the relationship was stronger for samples of women as compared to men. In this meta-analysis, family satisfaction was a catchall variable that included the measurement of marital satisfaction. Similarly, Wayne Musisca, and Fleeson (2004) found a positive relationship between family-to-work enrichment and family satisfaction. In this study, family satisfaction was measured as the average ratings of marital satisfaction and parental satisfaction.

Physical and mental health related outcomes are also associated with WFE. Work-to-family and family-to-work enrichment are positively correlated with mental and physical health, which includes variables such as psychological distress and depression, with effect sizes of  $r = .21$  and  $r = .21$  respectively. The relationships between WFE and job burnout, job satisfaction, affective commitment, family satisfaction, and depression highlight the positive transfer between work and family domains. For athletes and their romantic relationships it is important to consider not only the potential conflict that can arise from engagement in relationship and sport roles, but also the ways in which these roles can enrich one another.

In addition to direct effects, WFE also appears to moderate the relationship between WFC and anxiety (Grzywack & Bass, 2003), life satisfaction, and partner relationship quality (Gareis, Barnett, Ertel, & Berkman, 2009). The moderating effect of WFE has been attributed to recourses gained through WFE that allow an individual or couple to evaluate conflict as non-threatening rather than threatening (Gareis, et al., 2009). It is likely that SRE may also have moderating properties. For example, an athlete may feel personally fulfilled and happy from their sport, which results in being a better partner. When that athlete encounters a conflict with their partner their positive affect may help them to view the conflict in a non-threatening manner, allowing for effective conflict management.

### **Model of the Current Study**

Although WFC and WFE have been used to help identify the interplay between family and work roles, little is known about WFC and WFE with respect to athletes. The present study applies an adopted version of Amstad, et al.'s (2011) model, which suggests that WFC impacts work, family, and psychological outcomes, to athletes and their romantic relationships. The models in the present study propose that sport-to-relationship conflict, relationship-to-sport conflict, sport-to-relationship enrichment, and relationship-to-sport enrichment will moderate the association between relationship conflict and athlete burnout, sport commitment, depression, and relationship respect (refer to Figures 1 and 2). Studies have shown that work-to-family and family-to-work conflict and enrichment are associated with work, family, and psychological variables (Amstad et al., 2011; McNall et al., 2010) therefore, this study predicts that sport-to-

relationship and relationship-to-sport conflict and enrichment will be related to relationship, sport, and depression outcomes.

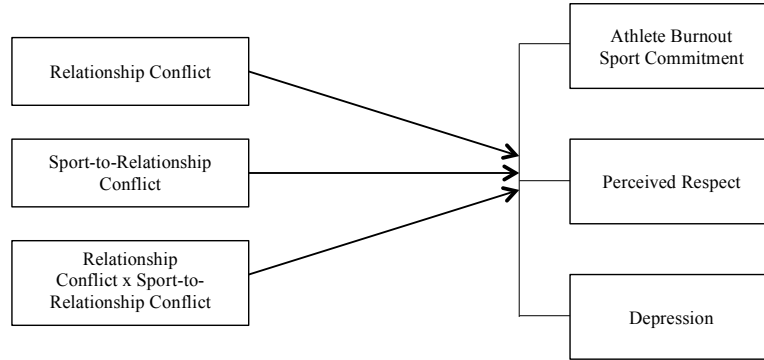


Figure 1. SRC moderation model

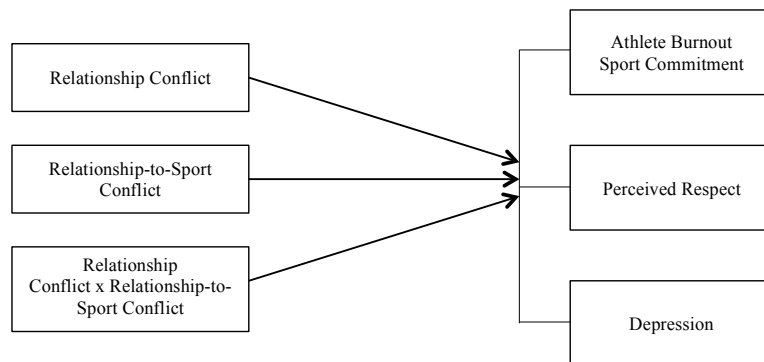


Figure 2. RSC moderation model

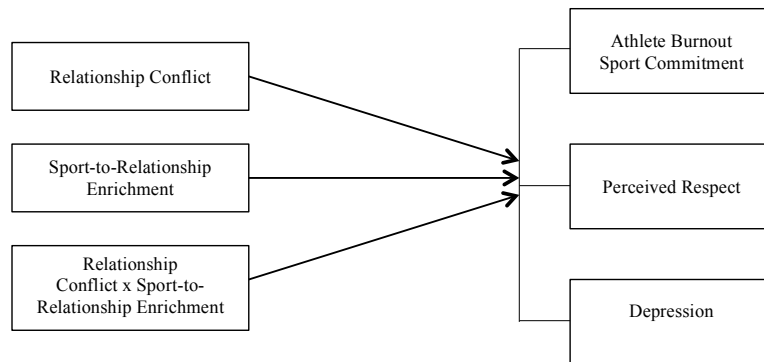


Figure 3. SRE moderation model



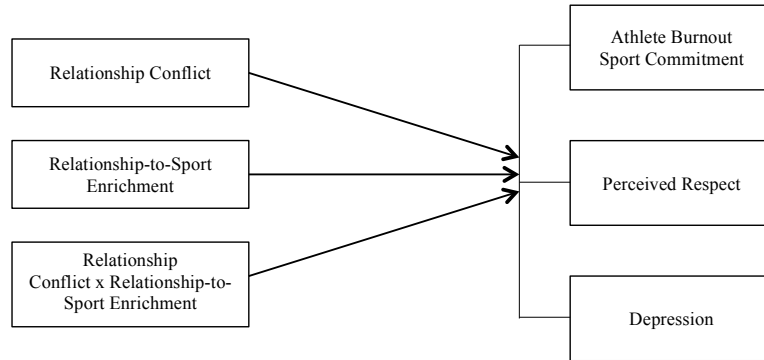


Figure 4. RSE moderation model

## Proposed Outcomes

### **Athlete burnout.**

Athletic burnout is characterized as “a psychological syndrome of emotional/physical exhaustion, reduced sense of accomplishment, and sport devaluation” (Raedeke & Smith, 2001, p. 283). Athletic burnout has a number of important physical, emotional, and performance related consequences. Physically burnout can lead to decreased appetite and body weight, sleep loss, increased resting heart rate, muscle tension, and poor immunity (Cox, 2012). Emotionally, burnout may lead to increased mood disturbances, exhaustion, interpersonal problems, poor reactions to stress (Cox, 2012), depression, anxiety, and anger (Smith, 1986). In terms of performance, burnout may cause reductions in motivation (Gustafsson et al., 2008) and premature withdrawal from sport (Goodger et al., 2007).

Smith (1986) asserted that athlete burnout is the outcome of chronic sport-related stress. In Smith’s model of stress and burnout, conflicting, stressful demands that are placed on athletes trigger cognitive (perception of overload, lack of control, and lack of accomplishment) and physiologic responses (tension, anger, depression, anxiety, fatigue) that incite behavioral responses (reduced performance, inappropriate coping or

withdrawal from sport; Cox, 2012). Given the inherent stress associated with the culture of college athletics, such as multiple role demands (Wilson & Pritchard, 2005) and pressure to succeed (Benford, 2007), it is important to understand the factors associated with burnout. For college athletes the presence or absence of SRC or SRE may impact the amount of stress they experience impacting the potential for burnout.

### **Sport Commitment.**

Sport commitment is defined as a “psychological construct representing the desire and resolve to continue sport participation” (Scanlan, Carpenter, Schmidt, Simons, & Keller, 1993a). Rooted in social exchange theory (e.g., Rusbalt, 1980), sport commitment is comprised of six predictors (i.e., sport enjoyment, involvement opportunities, involvement alternatives, personal investments, social constraints, and social support) grouped into three categories: influences that attract one to sport (attraction), influences that attract one to alternative activities (alternatives), and influences that keep individuals from quitting their sport (restraining forces; Scanlan, et al., 1993a; Scanlan, Russell, Wilson, & Scanlan, 2003). In the present study the attraction influences of sport enjoyment and social support will be examined. Sport enjoyment refers to positive affect that results from sport participation and is considered the greatest predictor of sport commitment (Carpenter & Coleman, 1998; Scanlan, et al., 1993a). Social support reflects athletes’ perceptions of the encouragement and support they receive from significant others for playing their sport (Scanlan, et al., 2003).

Research has consistently demonstrated positive correlations between sport enjoyment and social support and sport commitment among youth, adolescent, college, and adult athletes who participate at various competitive levels (Carpenter, Scanlan,

Simons, & Lobel, 1993; Casper, Gray, & Stellino, 2007; Scanlan, et al., 1993a; Weiss, 2015, Young, & Medic, 2011). However, the majority of studies examining sport enjoyment and commitment utilize youth, adolescent, and elite athlete samples, with few focusing on college athlete samples. Sport commitment is an important aspect of college athletics because it is positively associated with persistence in sport (Cox, 2012) and negatively associated with dropout (Cox, 2012; Schmidt & Stein, 1991). Additionally, athletes with high levels of commitment report higher levels of self-confidence and lower levels of anxiety than athletes with low levels of commitment (Hanton, Evans, & Neil, 2003). In a qualitative study examining the constructs of sport commitment, one participant (professional rugby player from New Zealand) referred to commitment stating, “[commitment] is probably about 85 to 90% of my success as an athlete, probably the start and the finish of sport at an elite level is commitment” (Scanlan, et al., 2003, p. 375).

Similar to the way WFC and WFE impact work commitment, SRC and SRE are likely to impact sport commitment. When athletes’ romantic relationships interfere with their sport, or their engagement in sport interferes with their relationship, athletes may experience decreased enjoyment in their sport. On the other hand, when there is a positive transfer of affect, development, or efficiency from athletes’ romantic relationships to their sport it is possible that sport enjoyment will increase. Additionally, athletes who experience conflict in their romantic relationships may perceive lower levels of sport-related support and encouragement from their partners resulting in lower levels of sport commitment. SRE may buffer the effect of relationship conflict on sport-related support,

particularly if an athlete experiences a positive affective transfer from their relationship to their sport.

### **Depressive Symptoms.**

Sport participation at an elite level and the multiple role stressors experienced by college athletes may negatively impact their psychological health (Nicholls, Polman, Levy, Taylor, & Coble, 2007). The prevalence rates of depression among college athletes vary, with most studies reporting rates between 15 and 28 percent (Proctor & Boan-Lenzo, 2010; Wolanin, Hong, Marks, Panchoo, & Gross, 2016; Yang, Peek, Asa, Corlette, Cheng, Foster, & Albright, 2007). The results of a meta-analysis examining relationships between athletic performance, and athletes' moods (as measured by the Profile of Mood States) revealed that depression has a small to moderate effect on sport performance outcomes ( $r = .26$  to  $.67$ ; Beedie, Terry, & Lane, 2000). The impact of depression on athletic performance is greater for short duration, team, and open skilled (sports with interactions among competitors and the possibility of external factors impacting performance) sports (Beedie, Terry, & Lane, 2000), and when performance outcome is measured subjectively (Cox, 2012). These results suggest that successful sport performances are associated with lower levels of depression than unsuccessful performances.

Athletes who experience relationship conflict and sport-relationship conflict may experience higher rates of depressive symptoms than those without such conflicts. For example, Jowett and Cramer (2009) found that WFC was significantly positively correlated with depression among elite-level athletes. It is possible the presence of WFC may increase the likelihood of depression among athletes who experience conflict with

their partners. On the other hand, WFE may buffer the impact of relationship conflict on depression. Some scholars suggest that social and team support may protect against depression among athletes (Armstrong & Oomen-Early, 2009). Due to the serious nature of the behavioral, physical, and academic outcomes related to depression, as well as the possible performance related outcomes, it is important to examine factors that may increase the prevalence of depressive symptoms among college athletes.

### **Respect.**

Respect is considered an important characteristic of interpersonal relationships (Gottman, 1994, Hendrick & Hendrick, 2006; Markman, Stanley, & Blumberg, 1994) and an indicator of marital quality (Feeney, Noller, & Ward, 1997, in Hendrick & Hendrick, 2006); however, a relatively small amount of research has been conducted on this topic. Similar constructs considered to be the opposite of respect – disrespect (Miller, 2001) and contempt (Gottman, 1994) – have been frequently examined in research suggesting that they are predictive of divorce. The small amount of empirical research that has specifically examined the construct of respect in romantic relationships suggests that respect is associated with a number of relationship outcomes. For example, among undergraduate students respect is a stronger predictor of relationship satisfaction than loving and liking (Frei & Shaver, 2002). Additionally, among undergraduate students respect is significantly negatively correlated with avoidant attachment, anxious attachment (Frei & Shaver, 2002; Owen, Quirk, & Manthos, 2012), interpersonal trauma (Owen, et al., 2012) and negative valiance (e.g., negative evaluation of partner's moral character; Frei & Shaver, 2002), and significantly positively correlated with psychological wellbeing, relationship dedication, relationship adjustment (Owen et al.,

2012), liking, loving, relationship satisfaction, positive valiance (Frei & Shaver, 2002), relationship commitment, and self-disclosure (Hendrick & Hendrick, 2006).

Scholars define and conceptualize respect using a variety of feelings, cognitions, behaviors and attitudes (Hendrick, & Hendrick, 2006). For example, respect has been referred to as accepting another (Singer, 1994), respecting the value and worth of another, honoring one's partner (Markman, et al., 2001), and a feeling of esteem for, and value of another (Jackson, Esses, Burris, 2001). Frei & Shaver (2002) investigated the definition of respect by asking undergraduate students to list features of respect between romantic partners. The most prominent features identified were acceptance, honesty, trust, reliability, loyalty, care, love, listening to other's viewpoints, and fostering other's development and freedom. Rooted in these features, the authors concluded that, "respect is not an emotion, but rather an attitude or disposition toward a particular person based on his or her perceived good qualities" (p. 125).

Lawrence-Lightfoot (2000) conceptualized respect as cyclical, meaning when athletes perceive low respect from their partners they will likely reciprocate with low respect, reducing trust and security in their relationships (Frei & Shaver, 2002). Relationship conflict marked by dishonesty, withdrawal, and a lack of understanding and acceptance is likely to reduce an athlete's perception of respect from their partner and generate reciprocal disrespect towards their partner. However, WFE may buffer the association between relationship conflict and respect through the production of recourses that allows individuals to effectively manage conflict (Gareis, et al., 2009).

## **Research Questions & Hypotheses**

The current study, founded in WFC and WFE theory, will examine the casual association between romantic relationship conflict and athlete burnout, sport commitment, depression, and relationship respect among Division I college athletes. This study will also examine whether SRC and SRE moderate the association between relationship conflict and athlete burnout, sport commitment, depression, and relationship respect. To examine the impact of relationship conflict on sport and relationship outcomes, participants in the experimental group will be primed for relationship conflict by reading a vignette expected to induce a negative mood in participants (refer to Appendix A and the methods section for a description of the vignette and experimental procedure).

### **Research questions.**

Research question 1a: Does conflict in romantic relationships effect athlete burnout among Division I college athletes?

Research question 1b: Is there an association between SRC and athlete burnout among Division I college athletes?

Research question 1c: Does SRC moderate the causal effect of relationship conflict on athlete burnout among Division I college athletes?

Research question 1d: Is there an association between RSC and athlete burnout among Division I college athletes?

Research question 1e: Does RSC moderate the causal effect of relationship conflict on athlete burnout among Division I college athletes?

Research question 1f: Is there an association between SRE and athlete burnout among Division I college athletes?

Research question 1g: Does SRE moderate the causal effect of relationship conflict on athlete burnout among Division I college athletes?

Research question 1h: Is there an association between RSE and athlete burnout among Division I college athletes?

Research question 1i: Does RSE moderate the causal effect of relationship conflict on athlete burnout among Division I college athletes?

Research question 2a: Does conflict in romantic relationships effect sport commitment Division I college athletes?

Research question 2b: Is there an association between SRC and sport commitment among Division I college athletes?

Research question 2c: Does SRC moderate the causal effect of relationship conflict on sport commitment among Division I college athletes?

Research question 2d: Is there an association between RSC and sport commitment among Division I college athletes?

Research question 2e: Does RSC moderate the causal effect of relationship conflict on sport commitment among Division I college athletes?

Research question 2f: Is there an association between SRE and sport commitment among Division I college athletes?

Research question 2g: Does SRE moderate the causal effect of relationship conflict on sport commitment among Division I college athletes?



Research question 2h: Is there an association between RSE and sport commitment among Division I college athletes?

Research question 2i: Does RSE moderate the causal effect of relationship conflict on sport commitment among Division I college athletes?

Research question 3a: Does conflict in romantic relationships effect depression Division I college athletes?

Research question 3b: Is there an association between SRC and depression among Division I college athletes?

Research question 3c: Does SRC moderate the causal effect of relationship conflict on depression among Division I college athletes?

Research question 3d: Is there an association between RSC and depression among Division I college athletes?

Research question 3e: Does RSC moderate the causal effect of relationship conflict on depression among Division I college athletes?

Research question 3f: Is there an association between SRE and depression among Division I college athletes?

Research question 3g: Does SRE moderate the causal effect of relationship conflict on depression among Division I college athletes?

Research question 3h: Is there an association between RSE and depression among Division I college athletes?

Research question 3i: Does RSE moderate the causal effect of relationship conflict on depression among Division I college athletes?

Research question 4a: Does conflict in romantic relationships effect relationship respect among Division I college athletes?

Research question 4b: Is there an association between SRC and relationship respect among Division I college athletes?

Research question 4c: Does SRC moderate the causal effect of relationship conflict on relationship respect among Division I college athletes?

Research question 4d: Is there an association between RSC and relationship respect among Division I college athletes?

Research question 4e: Does RSC moderate the causal effect of relationship conflict on relationship respect among Division I college athletes?

Research question 4f: Is there an association between SRE and relationship respect among Division I college athletes?

Research question 4g: Does SRE moderate the causal effect of relationship conflict on relationship respect among Division I college athletes?

Research question 4h: Is there an association between RSE and relationship respect among Division I college athletes?

Research question 4i: Does RSE moderate the causal effect of relationship conflict on relationship respect among Division I college athletes?

### **Hypotheses.**

Hypothesis 1a: Participants primed for relationship conflict will report higher levels of athlete burnout than those in the control group.

Hypothesis 1b: SRC will predict athlete burnout. Specifically, participants with higher levels of SRC will report with higher levels of burnout than participants with lower levels of SRC.

Hypothesis 1c: SRC will moderate the association between relationship conflict and athlete burnout. Specifically, participants who are primed for relationship conflict and have higher levels of SRC will report higher levels of burnout than participants with lower levels of SRC.

Hypothesis 1d: RSC will predict athlete burnout. Specifically, participants with higher levels of RSC will report higher levels of burnout than participants with lower levels of RSC.

Hypothesis 1e: RSC will moderate the association between relationship conflict and athlete burnout. Specifically, participants who are primed for relationship conflict and have higher levels of RSC will report higher levels of burnout than participants with lower levels of RSC.

Hypothesis 1f: SRE will predict athlete burnout. Specifically, participants with higher levels of SRE will report lower levels of burnout than participants with lower levels of SRE.

Hypothesis 1g: SRE will moderate the association between relationship conflict and athlete burnout. Specifically, participants who are primed for relationship conflict and have higher levels of SRE will report lower levels of burnout than participants with lower levels of SRE.

Hypothesis 1h: RSE will predict athlete burnout. Specifically, participants with higher levels of RSE will report lower levels of burnout than participants with lower levels of RSE.

Hypothesis 1i: RSE will moderate the association between relationship conflict and athlete burnout. Specifically, participants who are primed for relationship conflict and have higher levels of RSE will report lower levels of athlete burnout than participants with lower levels of RSE.

Hypothesis 2a: Participants primed for relationship conflict will report lower levels of sport commitment enjoyment and support than those in the control group.

Hypothesis 2b: SRC will predict sport commitment enjoyment and support. Specifically, participants with lower levels of SRC will report higher levels of sport enjoyment and sport support than participants with higher levels of SRC.

Hypothesis 2c: SRC will moderate the association between relationship conflict and sport commitment enjoyment and support. Specifically, participants who are primed for relationship conflict and have lower levels of SRC will report higher levels of sport enjoyment and sport support than participants with higher levels of SRC.

Hypothesis 2d: RSC will predict sport commitment enjoyment and support. Specifically, participants with lower levels of RSC will report higher levels of sport enjoyment and sport support than participants with higher levels of RSC.

Hypothesis 2e: RSC will moderate the association between relationship conflict and sport commitment enjoyment and support. Specifically, participants who are primed for relationship conflict and have lower levels of RSC will report higher levels of sport enjoyment and sport support than participants with higher levels of RSC.

Hypothesis 2f: SRE will predict sport commitment enjoyment and support. Specifically, participants with higher levels of SRE will report higher levels of sport enjoyment and sport support than participants with lower levels of SRE.

Hypothesis 2g: SRE will moderate the association between relationship conflict and sport commitment enjoyment and support. Specifically, participants who are primed for relationship conflict and have higher levels of SRE will report higher levels of sport enjoyment and sport support than participants with lower levels of SRE.

Hypothesis 2h: RSE will predict sport commitment enjoyment and support. Specifically, participants with higher levels of RSE will report higher levels of sport enjoyment and sport support than participants with lower levels of RSE.

Hypothesis 2i: RSE will moderate the association between relationship conflict and sport commitment enjoyment and support. Specifically, participants who are primed for relationship conflict and have higher levels of SRE will report higher levels of sport enjoyment and support than participants with lower levels of RSE.

Hypothesis 3a: Participants primed for relationship conflict will report higher levels of depression than those in the control group.

Hypothesis 3b: SRC will predict depression. Specifically, participants with higher levels of SRC will report higher levels of depression than participants with lower levels of SRC.

Hypothesis 3c: SRC will moderate the association between relationship conflict and depression. Specifically, participants who are primed for relationship conflict and have higher levels of SRC will report higher levels of depression than participants with lower levels of SRC.

Hypothesis 3d: RSC will predict depression. Specifically, participants with higher levels of RSC will report higher levels of depression than participants with lower levels of RSC.

Hypothesis 3e: RSC will moderate the association between relationship conflict and depression. Specifically, participants who are primed for relationship conflict and have higher levels of RSC will report higher levels of depression than participants with lower levels of RSC.

Hypothesis 3f: SRE will predict depression. Specifically, participants with higher levels of SRE will report lower levels of depression than participants with lower levels of SRE.

Hypothesis 3g: SRE will moderate the association between relationship conflict and depression. Specifically, participants who are primed for relationship conflict and have higher levels of SRE will report lower levels of depression than participants with lower levels of SRE.

Hypothesis 3h: RSE will predict depression. Specifically, participants with higher levels of RSE will report lower levels of depression than participants with lower levels of RSE.

Hypothesis 3i: RSE will moderate the association between relationship conflict and depression. Specifically, participants who are primed for relationship conflict and have higher levels of RSE will report lower levels of depression than participants with lower levels of RSE.

Hypothesis 4a: Participants primed for relationship conflict will report lower levels of relationship respect than those in the control group.

Hypothesis 4b: SRC will predict relationship respect. Specifically, participants with lower levels of SRC will report higher levels of relationship respect than participants with higher levels of SRC.

Hypothesis 4c: SRC will moderate the association between relationship conflict and relationship respect. Specifically, participants who are primed for relationship conflict and have lower levels of SRC will report higher levels of relationship respect than participants with higher levels of SRC.

Hypothesis 4d: RSC will predict relationship respect. Specifically, participants with lower levels of RSC will report higher levels of relationship respect than participants with higher levels of RSC.

Hypothesis 4e: RSC will moderate the association between relationship conflict and relationship respect. Specifically, participants who are primed for relationship conflict and have lower levels of SRC will report higher levels of respect than participants with higher levels of SRC.

Hypothesis 4f: SRE will predict relationship respect. Specifically, participants with higher levels of SRE will report higher levels of relationship respect than participants with lower levels of SRE.

Hypothesis 4g: SRE will moderate the association between relationship conflict and relationship respect. Specifically, participants who are primed for relationship conflict and have higher levels of SRE will report higher levels of respect than participants with lower levels of SRE.

Hypothesis 4h: RSE will predict relationship respect. Specifically, participants with higher levels of RSE will report higher levels of relationship respect than participants with lower levels of RSE.

Hypothesis 4i: RSE will moderate the association between relationship conflict and relationship respect. Specifically, participants who are primed for relationship conflict and have higher levels of RSE will report higher levels of relationship respect than participants with lower levels of RSE.



## CHAPTER TWO: METHODOLOGY

### **Participants**

Using G\*Power software (Faul, Erdfelder, Lang, and Buchner, 2007) an a priori power analysis was completed to ascertain the necessary sample size for simple regression for this study. Using multiple linear regression analyses with an effect size of .15, alpha level of .05, power of .80, and 8 predictor variables, the necessary sample size would be 109. Increasing the power to .95 would increase the necessary sample size to 160.

Participants were Division I college athletes from team and individual sports who were in romantic relationships. Inclusion criteria for the Division I college athletes was: (a) in an exclusive romantic relationship, (b) any length of time dating or married, (c) any age group, (d) any gender, (e) any sport. Participants were excluded if they were: (a) not a current member of a Division I college sport team, (b) single.

### **Participant demographics.**

The full sample consisted of 231 individuals; however, individuals who indicated that they were single were excluded, which resulted in deleting 67 cases. An additional 50 individuals were deleted due to not completing the entire survey. These participants did not complete any of the outcome variables. The final sample consisted of 114 participants. Five of the 114 participants did not complete one item on the survey. The

incomplete item differed for each participant. Survey scales were created using means to account for these missing responses.

Of the 114 participants, 81 (71.1%) identified as female. Ages ranged from 18 to 23 years old ( $M = 20.26$ ). Individuals in this sample were 90.4% White, 5.3% Black or African American, 2.6% Hispanic, and 1.8% Biracial. Most participants reported being in a romantic relationship with one person with whom they were not living (59.6%) or in a long distance relationship with one person (32.5%). The length of participants' relationships ranged from 1 month to 7 years. Seventy nine percent of participants reported that their partner was an athlete, 57.9% of whom were Division I, II, or III college athletes. None of the participants in the sample had a child. Twelve different Division I men's and women's sports were represented in the sample with ice hockey ( $n=36$ ), soccer ( $n=18$ ), lacrosse ( $n=17$ ) and football ( $n=13$ ) having the largest representation. Participants reported spending 26.1 hours per week on sport related activities. Nearly 40% of participants reported that they were in season at the time they took the survey. See Table 1 for an outline of demographic information.

Table 1  
*Study Participant Demographic Information*

Characteristics	Frequency	Percentage
Total Participants	114	100
Group		
Experimental	59	52.2
Control	54	47.8
Gender		
Female	81	71.1
Male	33	28.9

---

Age		
18	9	7.9
19	26	22.8
20	30	26.3
21	28	24.6
22	17	14.9
23	4	3.5
Race		
Black or African American	6	5.3
Hispanic or Latino(a)	3	2.6
White	103	90.4
Biracial	2	1.8
Relationship Status		
One partner, not cohabitating	68	59.6
One partner, cohabitating	7	6.1
One partner, long distance	37	32.5
Multiple partners	1	.9
Engaged	1	.9
Partner Gender		
Dating opposite gender	104	91.2
Dating same gender	10	8.8
Partner Athlete Status		
College DI	51	44.7
College DII or DIII	15	13.2
College Club	6	5.3
High school	18	15.8
Not an athlete	24	21.1
Hours Spent w/ Partner*		
No response	5	4.4
0	28	24.6
1-10	21	18.4
11-20	13	11.4
21-30	17	14.9
31-40	13	11.4
41-50	7	6.1
51-60	3	2.6
>60	7	6.1
In Sport Season		
Yes	35	30.7

---

No	79	69.3
<b>Sport</b>		
Alpine Ski	9	7.9
Basketball	2	1.8
Diving	1	0.9
Football	13	11.4
Golf	2	1.8
Gymnastics	6	5.3
Ice Hockey	36	31.6
Lacrosse	17	15.0
Soccer	18	15.8
Tennis	4	3.5
Volleyball	1	0.9
Water Polo	2	1.8
Missing	3	2.6
<b>Hours in Sport*</b>		
<10	2	1.8
10-15	14	12.3
16-20	27	23.7
21-25	20	17.5
26-30	25	22.0
31-35	9	7.9
36-40	7	6.1
>44	10	8.8

*Note.* Participants who reported same gender relationship were female  
\*per week

## **Measures**

### **Demographics.**

A demographic questionnaire was developed for this study. Participants were asked to provide information about their race, ethnicity, age, gender, relationship status, length of time in current relationship, number of children, the type of sport they play, the number of hours per week spent on their sport, and the number of years they have played their sport. The full demographic questionnaire is presented in Appendix A.

### **Sport-relationship conflict.**

Sport-to-relationship (SRC) and relationship-to-sport (RSC) conflict was measured using a modified version of Matthews, Kath, and Barnes-Farrell's (2010) abbreviated WFC. This scale contains 6 items and was developed to measure three dimensions of work-to-family conflict and family-to-work conflict (i.e., time-based, strain-based, and behavior-based). Responses are provided on a 5-point scale (1 = strongly disagree, 2 = disagree, 3 = neither agree or disagree, 4 = agree, and 5 = strongly agree) with higher scores representing higher levels of WFC. For application with athletes and their romantic relationships the scale was modified by changing the word *work* to *sport* and the word *family* or *spouse* to *romantic relationship* or *partner*. For example, the original item, "I have to miss family activities due to the amount of time I must spend on work responsibilities" was changed to, "I have to miss activities with my partner due to the amount of time I must spend on sport responsibilities." The full measure is presented in Appendix D.

Based on data collected from 101 men and women with a mean age of 39.1 the scales demonstrate adequate levels of internal consistency as measured by Cronbach's alpha: work-to-family conflict (.80), family-to-work conflict (.72). For the current study SRC demonstrated acceptable reliability  $\alpha = .71$ ; however, RSC did not  $\alpha = .51$ . Examination of the item-total statistics revealed that the reliability of the RSC scale would decrease if any items were deleted from the measure, therefore all 3 items were retained.

### **Sport-relationship enrichment.**

Sport-to-relationship (SRE) and relationship-to-sport enrichment (RSE) was measured using a modified version of Kacmar, Crawford, Carlson, Ferguson, and Whitten's (2014) WFE scale. The scale contains 6 items developed to measure three dimensions of work-to-family enrichment (development, affect, capital) and three dimensions of family-to-work enrichment (development, affect, efficiency). Responses are provided on a 5-point scale (1 = strongly disagree, 2 = disagree, 3 = neither agree or disagree, 4 = agree, and 5 = strongly agree) with higher scores representing higher levels of WFE. For application with athletes and their romantic relationships the scale was modified by changing the word *work* to *sport* and the word *family* or *spouse* to *romantic relationship* or *partner*. For example, the original item, "My involvement in my work makes me feel happy and this helps me be a better family member" was changed to, "My involvement in my sport makes me feel happy and this helps me be a better partner." The full measure is presented in Appendix E.

Based on data collected from 325 men and women with an average age of 38 the scales demonstrate adequate levels of internal consistency as measured by Cronbach's alpha: work-to-family enrichment (.87), family-to-work enrichment (.82). For the current sample SRE and RSE scales demonstrated acceptable reliability,  $\alpha = .83$  and  $\alpha = .77$  respectively.

### **Vignettes.**

A mood induction vignette that was designed specifically for this study was used to prime participants for relationship conflict and induce a negative mood. The vignette described a romantic relationship conflict related to sport participation and respect (see

Appendix F). Participants in the experimental condition were asked to imagine that they were engaged in the conflict they read about and to imagine how they would feel during and after said conflict. Imagination mood induction procedures are based on the assumption that the imagination of emotional events can induce mood states and the effect size of such procedures is  $d = 0.52$  (Westermann, Spies, Stahl, and Hesse, 1996). A neutral vignette about a trip to the grocery store was used in the control condition (see Appendix G).

### **Manipulation Check.**

There were two measures to gauge if the priming was effective. First, participants in the experimental condition were asked, “What is the likelihood that the scenario you read at the beginning of the survey would occur in your life?” This question was asked to assess the personal relevance of the conflict for each participant.

Second, all participants completed the Anger-Hostility (7 items) and Tension-Anxiety (6 items) subscales on the shortened version of the Profile of Mood States (SV-POMS; Shacham, 1983) to determine whether the vignettes induce a negative mood in participants. The SV-POMS consists of a mood adjective checklist and asks respondents to indicate the degree to which each mood adjective applies to them on a 5-point scale (1 = not at all, 2 = a little, 3 = moderately, 4 = quite a bit, 5 = extremely). Examples of adjectives on the Anger-Hostility scale are “angry” and “annoyed.” Examples of Anxiety-Tension adjectives are “tense” and “nervous.” Mean scores were calculated for each scale with higher scores indicating greater mood severity.

In the initial development of the SV-POMS the internal consistency, as measured by Cronbach’s alpha, of the Anger-Hostility scale was .89 and the internal consistency of

the Tension-Anxiety scale was .80 (Shacham, 1983). In the present study the alpha for the Anger-Hostility subscale was .89 and for Tension-Anxiety it was .94. The SV-POMS measure is presented in Appendix I.

### **Burnout.**

Athlete burnout was measured using the Athlete Burnout Questionnaire (ABQ; Raedeke & Smith, 2001). The ABQ is comprised of 15 items that measure three dimensions of athlete burnout, reduced sense of accomplishment (“It seems that no matter what I do, I don’t perform as well as I should”), emotional/physical exhaustion (“I am exhausted from the mental and physical demands of sport”), and sport devaluation (“I don’t care as much about my sport performance as I use to”). Participants respond to the frequency with which they experience aspects of burnout using a 5-point scale (1 = almost never, 2 = rarely, 3 = sometimes, 4 = frequently, 5 = almost always) with higher scores representing higher levels of burnout. The full measure is presented in Appendix K.

Based data collected from 208 Division I and Division II college athletes, Cronbach’s alpha and test-retest reliability for the three dimensions on this scale is: emotional/physical exhaustion (.91 and .92 respectively), reduced sense of accomplishment (.85 and .86 respectively), and sport devaluation (.90 and .92 respectively; Raedeke & Smith, 2001). In the present study the ABQ demonstrated acceptable reliability,  $\alpha = .93$ .

### **Sport commitment.**

Items from the sport commitment model were used to measure two aspects of sport commitment: sport enjoyment (4 items; Scanlan, Simons, Carpenter, Schmidt, &



Keeler, 1993b), and social support (4 items; Casper, Gray, & Stellino, 2007). These aspects of sport commitment were chosen due to their relevancy to a college population, and their potential to be impacted by relationship conflict. The sport enjoyment scale measures positive affect associated with sport participation. An example of an item on the sport enjoyment scale is, “do you enjoy playing your sport in college?” The social support scale measures perception of support and encouragement from significant others (Scanlan et al., 2003). An example of an item on this scale is, “I feel that I receive support from my partner about my sport.” Responses are provided on a 5-point scale ranging from 1 (not at all) to 5 (very much). The items were modified slightly to represent college athletics and romantic relationships. Additionally, since sport commitment can be measured with respect to commitment to a particular sport, team, or organization (Scanlan, Simons, Carpenter, Schmidt, & Keeler, 1993b), sport commitment was specified as commitment to athletes’ current college team. For example the social support question “people say things to make me feel good about playing my sport” was changed to, “my partner says things to make me feel good about playing my sport for my college/university.” The measure is presented in Appendix L.

In its initial development using youth athletes the enjoyment scale demonstrated good internal consistency with an alpha of .95 (Scanlan, et al., 1993b). Among adult recreational tennis players the enjoyment and social support scales demonstrated adequate levels of internal consistency with Cronbach’s alphas of .83 and .74 respectively (Casper et al., 2007) In the present study the sport enjoyment scale demonstrated acceptable reliability  $\alpha = .95$ . However, the original alpha for sport support scale was  $\alpha = .37$ . Examination of the item-total statistics resulted in the deletion of item three, “my

partner says things to keep me from playing my sport at my college/university.” Deleting this item resulted in a final alpha of .71. The two sport commitment scales are presented in Appendix H.

### **Depression.**

The Depression-Dejection (8 items) subscale on the SV-POMS (Shacham, 1983) was used to measure depressed mood. The SV-POMS consists of a mood adjective checklist and asks respondents to indicate the degree to which each mood adjective applies to them on a 5-point scale (1 = not at all, 2 = a little, 3 = moderately, 4 = quite a bit, 5 = extremely). Examples of adjectives on this scale are “sad” and “helpless.” Mean scores are calculated for each scale with higher scores indicating greater mood severity.

Cronbach’s alpha for the Depression-Dejection subscale ranges from .87 to .95 (DiLorenzo, Bovbjerg, Montgomery, Valdimarsdotti, & Jacobsen, 1999; Shacham, 1983). Additionally, the Depression-Dejection subscale is significantly correlated with the Hospital Anxiety and Depression scale and the negative affect factor on the Positive and Negative Affect Schedule (Terry, Lane, & Fogarty, 2003). In the current study this subscale demonstrated acceptable reliability,  $\alpha = .94$ . The Depression-Dejection subscale is presented in Appendix N.

### **Respect.**

Respect was measured using eight items from the Respect for Partner Scale (RPS; Frei & Shaver, 2002). This scale measures an individual’s perception of features of respect from their partner. Participants indicate the degree to which they agree or disagree with statements using a 7-point scale ranging from 1 (disagree strongly) to 7 (agree strongly). Examples of two questions on this measure are, “S/he is willing to listen and

hear my viewpoint” and “my partner is not understanding and empathetic” and “my partner is helpful, supportive, present when needed; tires to fulfill my needs.”

Cronbach’s alpha for the shortened eight-item measure was .85 among undergraduate students (Owen, et al., 2012). The initial alpha in the present sample for the RPS was .83. Based on an examination of the item-total statistics, item 8, “My partner is not understanding and empathetic” was deleted for the purposes of increasing the alpha. Deleting this item resulted in a final alpha of .95. The items used in the present study are presented in Appendix M.

### **Procedure**

A pilot study was conducted to test the vignette that was used to prime participants for relationship conflict. Two vignettes similar to the one that was used in the current study as well as items from the sport-relationship conflict measure, sport-relationship enrichment measure, and SV-POMS were administered via Qualtrics to the Relationship and Psychotherapy Lab at the University of Denver. The items were modified slightly for graduate students – any question that said *sport* or *athlete* was changed to *graduate school* or *graduate student*. Twenty participants were randomly assigned to a general relationship conflict prime condition, a sport-related relationship conflict condition, or a no prime (control) condition. Data revealed that participants in the experimental conditions reported higher levels of negative emotions (e.g., depression, anxiety and anger) than participants in the control condition, suggesting that the prime was effective. After reading the vignettes and taking the survey participants provided verbal feedback about the vignettes and the survey items. Feedback from participants led to changes to the directions for the vignette and the SV-POMS.

For the current study an online survey was created in Qualtrics and approved by University of Denver's Institutional Review Board (IRB). The survey was administered exclusively online to Division I college athletes. Using convenience sampling the author recruited participants by emailing coaches and requesting that they forward the survey link to their team. The author began data collection by reaching out to coaches that she knew followed by sending cold emails to additional coaches. The author also posted a Facebook request for participation; however, no one completed the survey through this medium. Sample recruitment emails are presented in Appendices Q and R.

Participants were asked to click a link in their email to complete a 20-30 minute online survey about their romantic relationships and participation in college athletics. Individuals were informed that their participation in the study was voluntary and made them eligible to win a \$200 Amazon gift card. Participants were provided with informed consent (see Appendix P). Following consent, all participants were asked to complete the demographics section, SRC/RSC and SRE/RSC measures, and were then randomly assigned to one of two conditions (experimental or control). The SRC/RSC and SRE/RSE measures were completed before participants were primed to ensure that the responses were not contaminated. In the experimental condition participants read a brief vignette about a hypothetical romantic relationship conflict related to respect and sport participation. In the control group participants read vignette about a trip to the grocery store. Subsequently, participants in both groups were asked to complete a survey comprised of the items in the measures described above. At the end of the survey participants who chose to participate in the raffle to win a \$200 Amazon gift card were asked to provide their email address. All survey results were coded and de-identified.

## Statistical Analysis

Descriptive and frequency data were examined to identify missing values, errors in the data, and outliers (Cohen, Cohen, West, & Aiken, 2003). Using the current sample the internal consistency of each measure was computed. Hierarchical linear regressions were composed to test the hypotheses. There was one independent variable with two levels: relationship conflict prime and no prime. SRC, RSC, SRE, and RSE were examined separately as moderation variables. The dependent variables were athlete burnout, sport commitment (enjoyment and support), depression, and relationship respect. Each outcome variable was tested separately.

Before testing the research hypotheses the data was prepared. First, the categorical predictor variables (experimental and control groups) were transformed via dummy coding (Cohen, Cohen, West, & Aiken, 2003). The control group was coded as zero and the experimental group was coded as one. Next, the continuous moderator variables (SRC/RSC and SRE/RSE) were centered to reduce multicollinearity among the variables in the regression equation (Cohen, Cohen, West, & Aiken, 2003; Frazier, Tix, & Barron, 2004). Then, the coded predictor variables were multiplied by the centered moderator variables to create interaction terms. The interaction terms were condition  $\times$  SRC, condition  $\times$  RSC, condition  $\times$  SRE, and condition  $\times$  RSE.

Following data preparation the relationship conflict prime was tested through a simple regression analysis. Additionally, correlation analyses were carried out on the study variables. Next, regression equations were structured. To test hypothesis 1a and 1b the condition (predictor variable) and SRC (moderator variable) were entered into the regression equation in step 1. Athlete burnout was entered as the dependent variable. The

unstandardized *B* coefficient was examined to determine the effect of relationship conflict on athlete burnout and the effect of SRC on athlete burnout. The same procedure was used to test all a, b, d, f, and h main effects hypotheses, interchanging SRC, RSC, SRE, and RSE and the outcome variables.

To test hypothesis 1c, the condition (predictor variable), SRC (moderation variable) were entered into the equation in step 1, followed by condition  $\times$  SRC (interaction term) in step 2 (Frazier, Tix, & Barron, 2004). Athlete burnout was the dependent variable. To test hypothesis 1e the condition and RSC were entered into the equation in step 1, followed by condition  $\times$  RSC in step 2. Hypothesis 1g was tested by entering the condition and SRE at step 1 and condition  $\times$  SRE in step 2. Hypothesis 1i was tested by entering the condition and RSE at step 1 and condition  $\times$  RSE in step 2. Similar regression equations were created for all c, e, g, and i moderation hypotheses, interchanging SRC, RSC, SRE, and RSE and the outcome variables.

The unstandardized *b* coefficient was examined to determine the effect of the interaction on the outcome variables. The change in  $R^2$  and the single degree *F* statistic were also analyzed to determine whether the addition of the interaction terms account for a significant change in the unique variance explained in the model (Aiken & West, 1991). In the case of a significant interaction term Aiken and West's (1991) Simple Slopes Analysis was carried out utilizing the 2-way unstandardized excel workbook from Dawson (2013). This approach calculated the predicted value of an outcome variable under high and low values of relationship conflict priming and the moderator variables. The interactions were examined at one standard deviation above and below the mean.

## CHAPTER THREE: RESULTS

### **Preliminary Analysis**

#### **Normality of the data.**

Data was reviewed and cleaned in SPSS. Data was inspected to test if they met the assumption of normality. Skewness was examined for all of the study variables. SRC, SRE, RSE, and ABQ scales were not skewed. However, RSC, POMS Anxiety, POMS Anger, POMS Depression were positively skewed, and sport commitment and Respect for Partner scales were negatively skewed.

#### **Descriptive statistics.**

*Sport-relationship conflict.* The mean scores for SRC  $M = 2.77$ ,  $SD = .89$ , and RSC  $M = 1.51$ ,  $SD = .56$  suggest that participants experience more SRC than RSC. Additionally these results indicate that participants were experiencing generally low levels of SRC and RSC. See Table 2 for a summary of descriptive statistics.

*Sport-relationship enrichment.* Descriptive statistics of the SRE and RSE scales indicate that on average participants reported agreeing with questions that imply they experience sport-relationship enrichment. Participants reported experiencing similar levels of SRE  $M = 3.99$ ,  $SD = .78$  and RSE  $M = 3.96$ ,  $SD = .69$ .

*Manipulation check.* The mean score on the Anger-Hostility and Tension-Anxiety scales on the shortened version of the Profile of Mood States (SV-POMS; Shacham, 1983) were  $M = 1.45$ ,  $SD = .77$ , and  $M = 1.72$ ,  $SD = .84$  respectively. Based on

these results, participants were generally either not experiencing, or were experiencing “a little” anger or anxiety.

Participants were asked “what is the likelihood that the scenario you read at the beginning of the survey would occur in your life.” Responses were provided on a 5-point scale (1 = not likely, 2 = somewhat likely, 3 = moderately likely, 4 = very likely, 5 = extremely likely). Forty percent reported that the scenario is not likely at all to occur in their life and 10.5% reported that the scenario is extremely likely to occur in their life. On average participants felt like the scenario was somewhat to moderately likely to occur in their life  $M = 2.47$ .

***Burnout.*** The mean score for the ABQ was 2.45,  $SD = .77$ , indicating that participants rarely or sometimes experience burnout.

***Sport commitment.*** The mean scores for sport enjoyment  $M = 4.23$ ,  $SD = .93$  and sport support  $M = 4.57$ ,  $SD = .60$  scales indicate that participants generally enjoy their sport, and feel supported – with regard to sports – by their romantic partner.

***Depression.*** The mean score on the Depression-Dejection subscale was  $M = 1.23$ ,  $SD = .50$ . These results indicate that participants were generally not experiencing depression symptoms.

***Respect.*** On average, participants reported experiencing respect from their partner  $M = 6.47$ ,  $SD = .80$ .

Table 2  
*Means and Standard Deviations*

Variable	Range	M	SD
1. Anger	1-5	1.45	.77
2. Anxiety	1-5	1.72	.83



3. SRC	1-5	2.77	.89
4. RSC	1-5	1.5	.56
5. SRE	1-5	3.99	.78
6. RSE	1-5	3.96	.69
7. ABQ	1-5	2.45	.77
8. Enjoy	1-5	4.23	.93
9. Support	1-5	4.57	.60
11. Dep	1-5	1.23	.50
10. Respect	1-7	6.67	.80

Notes. Anger = SV-POMS Anger-Hostility scale; Anxiety = SV-POMS Tension-Anxiety scale; SRC = sport-to-relationship conflict; RSC = relationship-to-sport conflict; SRE = sport-to-relationship enrichment; RSE = relationship-to-sport enrichment; ABQ = Athlete Burnout Questionnaire; Enjoy = sport enjoyment; Support = sport support; Dep = SV-POMS Depression-Dejection scale; Respect = Respect for Partner Scale.

### **Correlation of study variables.**

There are a number of noteworthy correlations between the study variables.

Surprisingly, the only significant correlation with the experimental group was anger ( $r = .205$ ). That is, being a part of the experimental group was associated with higher reports of anger. SRC was significantly positively correlated with RSC ( $r = .371$ ) and athlete burnout ( $r = .270$ ), and significantly negatively correlated with SRE ( $r = -.307$ ), RSE ( $r = -.307$ ), sport enjoyment ( $r = -.193$ ), and sport support ( $r = -.371$ ). These findings suggest that participants who experience SRC may be more likely to experience burnout, and less likely to experience sport-relationship enrichment, sport enjoyment, and feel supported by their partner with regard to their sport. Similarly, RSC was significantly positively correlated with athlete burnout ( $r = .245$ ) and significantly negatively correlated with SRE ( $r = -.306$ ), RSE ( $r = -.393$ ), and sport support ( $r = -.287$ ). RCS was not significantly correlated with sport enjoyment, however it was significantly negatively correlated with relationship respect ( $r = -.365$ ). Also consistent with previous literature on WFC, SRE was significantly positive correlated with RSE ( $r = .455$ ), sport enjoyment ( $r = .568$ ) and

sport support ( $r = .456$ ), and significantly negatively correlated with burnout ( $r = -.610$ ) and depression ( $r = -.223$ ). RSE was significantly positive correlated with sport enjoyment ( $r = .241$ ), sport support ( $r = .447$ ), and relationship respect ( $r = .199$ ) and significantly negatively correlated with burnout ( $r = -.186$ ). A summary of the correlations are presented in Table 3.

Table 3  
*Intercorrelations of Study Variables*

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Group	--											
2. Anger	.205*	--										
3. Anxiety	.005	.621**	--									
4. SRC	.068	.164	.235*	--								
5. RSC	-.041	.189*	.199*	.371**	--							
6. SRE	.023	-.230*	-.127	-.307**	-.306**	--						
7. RSE	-.028	-.187*	-.172	-.307**	-.393**	.455**	--					
8. ABQ	-.019	.154	.204*	.270**	.245**	-.610**	-.186*	--				
9. Enjoy	.056	-.093	-.116	-.193*	-.125	.568**	.241*	-.772**	--			
10. Support	-.047	-.218*	-.231	-.371**	-.287**	.456**	.447**	-.334**	.310**	--		
11. Dep	-.090	.217*	.305**	.045	.165	-.223*	-.085	.308**	-.269*	-.294**	--	
12. Respect	-.121	-.217*	-.177	-.136	-.365**	.100	.199*	-.067	.009	.336**	-.120	--

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

Notes. Group = experimental or control condition; Anger = SV-POMS Anger-Hostility scale; Anxiety = SV-POMS Tension-Anxiety scale; SRC = sport-to-relationship conflict; RSC = relationship-to-sport conflict; SRE = sport-to-relationship enrichment; RSE = relationship-to-sport enrichment; ABQ = Athlete Burnout Questionnaire; Enjoy = sport enjoyment; Support = sport support; Dep = SV-POMS Depression-Dejection scale; Respect = Respect for Partner Scale.

### Manipulation check.

Participants in the experimental group reported significantly higher levels of anger ( $M = 1.61$ ,  $SD = .91$ ) than participants in the control group ( $M = 1.29$ ,  $SD = .53$ ),  $t(111) = 2.201$ ,  $p = .030$ . There was not a significant difference in anxiety levels between participants in the experimental and control groups,  $t(111) = 0.053$ ,  $p = .958$ . In other words, being primed for relationship conflict caused participants to feel angrier than participants who were given the neutral prime; however, being primed for relationship conflict did not cause participants to feel more anxious.

## **Analysis of the Research Hypotheses**

Hypotheses were tested using hierarchical linear regression analyses to examine the main effects of relationship conflict on athlete burnout, sport commitment, depression, and relationship respect, and to examine whether SRC, RSC, SRE and RSE separately moderate the causal effect of relationship conflict on the outcome variables.

**Hypothesis 1a: Participants primed for relationship conflict will report higher levels of athlete burnout than those in the control group.**

Relationship conflict priming did not significantly predict athlete burnout  $b = -0.058, p = .678$  (see Table 4). That is, participants who were primed for relationship conflict did not report higher levels of athlete burnout than participants who were not primed. Therefore, hypothesis 1a was not supported.

**Hypothesis 1b: SRC will predict athlete burnout. Specifically, participants with higher levels of SRC will report higher levels of burnout than participants with lower levels of SRC.**

SRC was a significant predictor of athlete burnout  $b = 0.238, p = .003$ . That is, participants who reported higher levels of SRC were more likely to report athlete burnout than those with lower levels of SRC. Therefore, hypothesis 1b was supported.

**Hypothesis 1c: SRC will moderate the association between relationship conflict and athlete burnout. Specifically, participants who are primed for relationship conflict and have higher levels of SRC will report higher levels of burnout than participants with lower levels of SRC.**

The full regression model predicted 13.8% of the variance in athlete burnout. The interaction between SRC and relationship conflict priming was significant  $b = -0.429, p =$

.006 (see Table 4), and it significantly contributed to the unique variance in the model,  $F(3, 109) = 5.837, p = .001, \Delta R^2 = .062$ . In other words, sport-to-relationship conflict moderated the association between relationship conflict prime and athlete burnout.

To examine the meaning of the interaction Aiken and West's (1991) Simple Slopes Analysis was used (see Figure 2). The analysis revealed a significant negative association between relationship conflict priming and athlete burnout at higher levels of SRC (+1SD),  $b = -0.444, t(112) = -2.276, p = .025$ . This relationship was positive, yet insignificant at lower levels of SRC (-1SD),  $b = 0.320, t(112) = 1.640, p = .104$ . Thus, SRC moderates the association between relationship conflict prime and experiencing athlete burnout only at higher levels of SRC. At higher levels of SRC participants who are primed for relationship conflict experience less burnout than those who are not primed. In other words, it appears that for participants with higher levels of SRC being primed for relationship conflict is actually associated with lower burnout. Although SRC did in fact moderate the relationship between relationship conflict and burnout, the direction of the interaction is different than what was hypothesized, therefore hypothesis 1c was only partially supported.

Table 4  
*Regression model of relationship conflict prime, SRC, and athlete burnout*

	<i>b</i>	SE
<b>Step 1</b>		
<b>Group</b>	-.058	.140
<b>SRC</b>	.238**	.079
<b>Step 2</b>		
<b>Group</b>	-.062	.136
<b>SRC</b>	.464**	.111
<b>Interaction</b>	-.429**	.154
<b>R<sup>2</sup></b>	.138**	

---

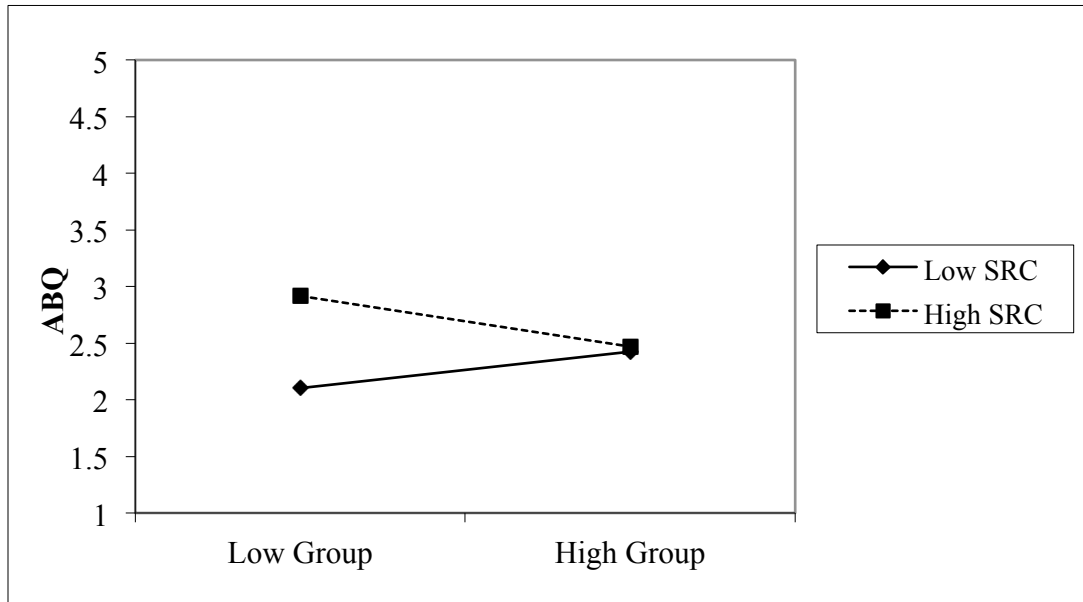
$\Delta R^2$  .062\*\*

---

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

Notes. Group = experimental or control condition; SRC = sport-to-relationship conflict.

Figure 2. Simple slopes analysis for the regression model of condition, SRC, and burnout



Notes. ABQ = Athlete Burnout Questionnaire; SRC = sport-to-relationship conflict; Low Group = control condition; High Group = experimental condition.

**Hypothesis 1d: RSC will predict athlete burnout. Specifically, participants with higher levels of RSC will report higher levels of burnout than participants with low levels of RSC.**

RSC significantly predicted athlete burnout  $b = 0.321$ ,  $p = .013$  (see Table 5).

That is, participants who reported higher levels of RSC were more likely to report burnout than those with lower levels of RSC. Therefore, hypothesis 1d was supported.

**Hypothesis 1e: RSC will moderate the association between relationship conflict and athlete burnout. Specifically, participants who are primed for**

**relationship conflict and have higher levels of RSC will report higher levels of burnout than participants with lower levels of RSC.**

The full regression model predicted 5.7% of the variance in athlete burnout. The interaction between RSC and relationship conflict priming was not significant  $b = -0.123$ ,  $p = .634$  and it did not significantly contribute to the unique variance in the model,  $F(3,109) = 2.194$ ,  $p = .093$ ,  $\Delta R^2 = .002$ . In other words, RSC did not moderate the association between relationship conflict prime and burnout. Therefore hypothesis 1e was not supported.

Table 5  
*Regression model of relationship conflict prime, RSC, and athlete burnout*

	<i>b</i>	SE
<b>Step 1</b>		
<b>Group</b>	-.015	.142
<b>RSC</b>	.321**	.127
<b>Step 2</b>		
<b>Group</b>	-.014	.142
<b>RSC</b>	.389*	.191
<b>Interaction</b>	-.123	.257
<b>R<sup>2</sup></b>	.057	
<b>ΔR<sup>2</sup></b>	.002	

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

Notes. Group = experimental or control condition; RSC = relationship-to-sport conflict.

**Hypothesis 1f: SRE will predict athlete burnout. Specifically, participants with higher levels of SRE will report lower levels of burnout than participants with lower levels of SRE.**

SRE significantly predicted athlete burnout  $b = -0.614$   $p < .000$  (see Table 6). In other words, participants who reported higher levels of SRE were less likely to report burnout than those with lower levels of SRE. Therefore, hypothesis 1f was supported.

**Hypothesis 1g: SRE will moderate the association between relationship conflict and athlete burnout. Specifically, participants who are primed for relationship conflict and have higher levels of SRE will report lower levels of burnout than participants with lower levels of SRE.**

The full regression model predicted 39.2% of the variance in athlete burnout. The interaction between SRE and relationship conflict priming was not significant  $b = -0.014$ ,  $p = .922$  and it did not significantly contribute to the unique variance in the model,  $F(3,109) = 23.430$ ,  $p < .000$ ,  $\Delta R^2 = .000$ . In other words, SRE did not moderate the association between relationship conflict prime and athlete burnout. Therefore hypothesis 1g was not supported.

Table 6  
*Regression model of relationship conflict prime, SRE, and Athlete Burnout*

	<i>b</i>	SE
<b>Step 1</b>		
<b>Group</b>	-.007	.114
<b>SRE</b>	-.614**	.073
<b>Step 2</b>		
<b>Group</b>	-.007	.114
<b>SRE</b>	-.608**	.097
<b>Interaction</b>	-.014	.148
<b>R<sup>2</sup></b>	.392**	
<b>ΔR<sup>2</sup></b>	.000	

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

Notes. Group = experimental or control condition; SRE = sport-to-relationship enrichment.

**Hypothesis 1h: RSE will predict athlete burnout. Specifically, participants with higher levels of RSE will report lower levels of burnout than participants with lower levels of RSE.**

RSE significantly predicted athlete burnout  $b = -0.2.18$   $p = .038$  (see Table 7).

That is, participants who reported higher levels of RSE were less likely to report burnout than those with lower levels of SRE. Therefore, hypothesis 1h was supported.

**Hypothesis 1i: RSE will moderate the association between relationship conflict and athlete burnout. Specifically, participants who are primed for relationship conflict and have higher levels of RSE will report lower levels of athlete burnout than participants with lower levels of RSE.**

The full regression model predicted 4.2% of the variance in athlete burnout. The interaction between RSE and relationship conflict priming was not significant  $b = 0.125$ ,  $p = .549$  and it did not significantly contribute to the unique variance in the model,  $F(3,109) = 1.593$ ,  $p = .195$ ,  $\Delta R^2 = .003$ . In other words, RSE did not moderate the association between relationship conflict prime and athlete burnout. Therefore hypothesis 1i was not supported.

Table 7  
*Regression model of relationship conflict prime, RSE, and Athlete Burnout*

	<i>b</i>	SE
<b>Step 1</b>		
<b>Group</b>	-.038	.143
<b>RSE</b>	-.218*	.104
<b>Step 2</b>		
<b>Group</b>	-.039	.143
<b>RSE</b>	-.285	.153
<b>Interaction</b>	.125	.209
<b>R<sup>2</sup></b>	.042	
<b>ΔR2</b>	.003	

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



**Hypothesis 2a: Participants primed for relationship conflict will report lower levels of sport commitment enjoyment and support than those in the control group.**

Relationship conflict priming did not significantly predict sport commitment (enjoyment)  $b = 0.129$ ,  $p = .458$  (see Table 8) nor sport commitment (support)  $b = -0.026$ ,  $p = .804$  (see Table 9). That is, participants who were primed for relationship conflict did not report lower levels of sport enjoyment or sport support than participants who were not primed. Therefore, hypothesis 2a was not supported.

**Hypothesis 2b: SRC will predict sport commitment enjoyment and support. Specifically, participants with lower levels of SRC will report higher levels of sport enjoyment and sport support than participants with higher levels of SRC.**

SRC was a significant predictor of sport commitment (enjoyment)  $b = -0.206$ ,  $p = .037$  and sport commitment (support)  $b = -.249$ ,  $p < .000$ . In other words, participants who reported lower levels of SRC were more likely to report sport enjoyment and sport support than those with higher levels of SRC. Therefore, hypothesis 2b was supported.

**Hypothesis 2c: SRC will moderate the association between relationship conflict and sport commitment enjoyment and support. Specifically, participants who are primed for relationship conflict and have lower levels of SRC will report higher levels of sport enjoyment and sport support than participants with higher levels of SRC.**

The interaction between SRC and relationship conflict priming was not a significant predictor of sport enjoyment  $b = 0.179$ ,  $p = .361$  or sport support  $b = -0.065$ ,  $p = .586$ . The interaction term did not significantly contribute to the unique variance in the model for sport enjoyment,  $F(3, 109) = 1.885$ ,  $p = .136$ ,  $\Delta R^2 = .007$ , or sport support  $F(3,$

109) = 5.963,  $p = .001$ ,  $\Delta R^2 = .002$ . In other words, SRC did not moderate the association between relationship conflict prime and sport enjoyment or sport support. Thus hypothesis 2c was not supported.

Table 8  
*Regression model of relationship conflict prime, SRC, and Sport Commitment (enjoyment)*

	<i>b</i>	SE
<b>Step 1</b>		
<b>Group</b>	.129	.173
<b>SRC</b>	-.206*	.097
<b>Step 2</b>		
<b>Group</b>	.131	.173
<b>SRC</b>	-.300*	.142
<b>Interaction</b>	.179	.195
<b>R<sup>2</sup></b>	.049	
<b>ΔR<sup>2</sup></b>	.007	

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

Notes. Group = experimental or control condition; SRC = sport-to-relationship conflict.

Table 9  
*Regression model of relationship conflict prime, SRC, and Sport Commitment (support)*

	<i>b</i>	SE
<b>Step 1</b>		
<b>Group</b>	-.026	.106
<b>SRC</b>	-.249**	.060
<b>Step 2</b>		
<b>Group</b>	-.027	.106
<b>SRC</b>	-.214*	.087
<b>Interaction</b>	-.065	.120
<b>R<sup>2</sup></b>	.141**	
<b>ΔR<sup>2</sup></b>	.002	

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

Notes. Notes. Group = experimental or control condition; SRC = sport-to-relationship conflict.

**Hypothesis 2d: RSC will predict sport commitment enjoyment and support. Specifically, participants with lower levels of RSC will report higher levels of sport enjoyment and sport support than participants with higher levels of RSC.**

RSC did not significantly predict sport commitment (enjoyment)  $b = -0.202, p = .589$  (see Table 10). RSC did predict sport commitment (support)  $b = -0.306, p = .002$  (see Table 11). In other words, participants who reported lower levels of RSC were not more likely to report sport enjoyment; however, they were more likely to report sport support than those with higher levels of RSC. Therefore, hypothesis 2d was partially supported.

**Hypothesis 2e: RSC will moderate the association between relationship conflict and sport commitment enjoyment and support. Specifically, participants who are primed for relationship conflict and have lower levels of RSC will report higher levels of sport enjoyment and sport support than participants with higher levels of RSC.**

The interaction between RSC and relationship conflict priming was not a significant predictor of sport enjoyment  $b = 0.161, p = .613$  or sport support  $b = -0.036, p = .857$ . The interaction term did not significantly contribute to the unique variance in the model for sport enjoyment,  $F(3, 109) = 0.748, p = .526, \Delta R^2 = .002$ , or sport support  $F(3, 109) = 3.313, p = .023, \Delta R^2 = .000$ . That is, RSC did not moderate the association between relationship conflict prime and sport enjoyment or sport support. Thus hypothesis 2e was not supported.

Table 10

*Regression model of relationship conflict prime, RSC, and Sport Commitment (enjoyment)*

Step	<i>b</i>	SE
<b>Step 1</b>		
<b>Group</b>	.095	.175
<b>RSC</b>	-.202	.157
<b>Step 2</b>		
<b>Group</b>	.094	.176
<b>RSC</b>	-.291	.236
<b>Interaction</b>	.161	.318
<b>R<sup>2</sup></b>	.020	
<b>ΔR2</b>	.002	

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

Notes. Group = experimental or control condition; RSC = relationship-to-sport conflict.

Table 11

*Regression model of relationship conflict prime, RSC, and Sport Commitment (support)*

	<i>b</i>	SE
<b>Step 1</b>		
<b>Group</b>	-.070	.109
<b>RSC</b>	-.306**	.098
<b>Step 2</b>		
<b>Group</b>	-.070	.110
<b>RSC</b>	-.286	.147
<b>Interaction</b>	-.036	.198
<b>R<sup>2</sup></b>	.084*	
<b>ΔR2</b>	.000	

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

Notes. Group = experimental or control condition; RSC = relationship-to-sport conflict.

**Hypothesis 2f: SRE will predict sport commitment enjoyment and support.**

**Specifically, participants with higher levels of SRE will report higher levels of sport enjoyment and sport support than participants with lower levels of SRE.**

SRE was a significant predictor of sport commitment (enjoyment)  $b = 0.677$ ,  $p < .000$  (see Table 12) and sport commitment (support)  $b = 0.353$ ,  $p < .000$  (see Table 13).

That is, participants who reported higher levels of SRE were more likely to report sport enjoyment and sport support than those with lower levels of SRE. Therefore, hypothesis 2f was supported.

**Hypothesis 2g: SRE will moderate the association between relationship conflict and sport commitment enjoyment and support. Specifically, participants who are primed for relationship conflict and have higher levels of SRE will report higher levels of sport enjoyment and sport support than participants with lower levels of SRE.**

The interaction between SRE and relationship conflict priming was not a significant predictor of sport enjoyment  $b = 0.138, p = .464$  or sport support  $b = -0.008, p = .952$ . The interaction term did not significantly contribute to the unique variance in the model for sport enjoyment,  $F(3, 109) = 17.907, p < .000, \Delta R^2 = .002$ , or sport support  $F(3, 109) = 9.931, p = .000, \Delta R^2 = .000$ . In other words, SRE did not moderate the association between relationship conflict prime and sport enjoyment or sport support. Thus hypothesis 2g was not supported.

Table 12  
*Regression model of relationship conflict prime, SRE, and Sport Commitment (enjoyment)*

	<i>b</i>	SE
<b>Step 1</b>		
<b>Group</b>	.079	.145
<b>SRE</b>	.677**	.093
<b>Step 2</b>		
<b>Group</b>	.079	.145
<b>SRE</b>	.617**	.124
<b>Interaction</b>	.138	.188
<b>R<sup>2</sup></b>	.330**	
<b>ΔR<sup>2</sup></b>	.003	

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

Notes. Group = experimental or control condition; SRE = sport-to-relationship enrichment.

Table 13

*Regression model of relationship conflict prime, SRE, and Sport Commitment (support)*

	<i>b</i>	SE
<b>Step 1</b>		
<b>Group</b>	-.069	.101
<b>SRE</b>	.353**	.065
<b>Step 2</b>		
<b>Group</b>	-.069	.101
<b>SRE</b>	.375**	.086
<b>Interaction</b>	-.008	.131
<b>R<sup>2</sup></b>	.215**	
<b>ΔR2</b>	.000	

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

Notes. Group = experimental or control condition; SRE = sport-to-relationship enrichment.

**Hypothesis 2h: RSE will predict sport commitment enjoyment and support.**

**Specifically, participants with higher levels of RSE will report higher levels of sport enjoyment and sport support than participants with lower levels of RSE.**

RSE was a significant predictor of sport commitment (enjoyment)  $b = 0.292$ ,  $p = .021$  (see Table 14) and sport commitment (support)  $b = 0.415$   $p < .000$  (see Table 15). In other words, participants who reported higher levels of RSE were more likely to report sport enjoyment and sport support than those with lower levels of RSE. Therefore, hypothesis 2h was supported.

**Hypothesis 2i: RSE will moderate the association between relationship conflict and sport commitment enjoyment and support. Specifically, participants who are primed for relationship conflict and have higher levels of RSE will report**

**higher levels of sport enjoyment and support than participants with lower levels of RSE.**

The interaction between RSE and relationship conflict priming was not a significant predictor of sport enjoyment  $b = -0.339, p = .178$  or sport support  $b = -0.203, p = .163$ . The interaction term did not significantly contribute to the unique variance in the model for sport enjoyment,  $F(3, 109) = 2.567, p = .058, \Delta R^2 = .016$ , or sport support  $F(3, 109) = 11.874, p < .000, \Delta R^2 = .014$ . In other words, RSE did not moderate the association between relationship conflict prime and sport enjoyment or sport support. Thus hypothesis 2i was not supported.

Table 14  
*Regression model of relationship conflict prime, RSE, and Sport Commitment (enjoyment)*

	<i>b</i>	SE
<b>Step 1</b>		
<b>Group</b>	.115	.172
<b>RSE</b>	.292*	.125
<b>Step 2</b>		
<b>Group</b>	.119	.172
<b>RSE</b>	.474**	.183
<b>Interaction</b>	-.339	.250
<b>R<sup>2</sup></b>	.066	
<b>ΔR<sup>2</sup></b>	.016	

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

Notes. Group = experimental or control condition; RSE = relationship-to-sport enrichment.

Table 15  
*Regression model of relationship conflict prime, RSE, and Sport Commitment (support)*

	<i>b</i>	SE
<b>Step 1</b>		
<b>Group</b>	-.040	.100

<b>RSE</b>	.416**	.072
<b>Step 2</b>		
<b>Group</b>	-.038	.099
<b>RSE</b>	.525**	.106
<b>Interaction</b>	-.203	.145
<b>R<sup>2</sup></b>	.246**	
<b>ΔR2</b>	.014	

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

Notes. Group = experimental or control condition; RSE = relationship-to-sport enrichment.

**Hypothesis 3a: Participants primed for relationship conflict will report higher levels of depression than those in the control group.**

Relationship conflict priming did not significantly predict depression  $b = -0.092$ ,  $p = .336$  (see Table 16). That is, participants who were primed for relationship conflict did not report higher levels of depression symptoms than participants who were not primed. Therefore, hypothesis 3a was not supported.

**Hypothesis 3b: SRC will predict depression. Specifically, participants with higher levels of SRC will report higher levels of depression than participants with lower levels of SRC.**

SRC was not a significant predictor of depression  $b = 0.029$ ,  $p = .601$ . That is, participants who reported higher levels of SRC were not more likely to report depression symptoms than those with lower levels of SRC. Therefore, hypothesis 3b was not supported.

**Hypothesis 3c: SRC will moderate the association between relationship conflict and depression. Specifically, participants who are primed for relationship conflict and have higher levels of SRC will report higher levels of depression than participants with low levels of SRC.**



The full regression model predicted 1.3% of the variance in depression. The interaction between SRC and relationship conflict priming was not significant  $b = -0.054$ ,  $p = .624$  and it did not significantly contribute to the unique variance in the model,  $F(3, 106) = 0.464$ ,  $p = .708$ ,  $\Delta R^2 = .002$ . In other words, SRC did not moderate the association between relationship conflict prime and depression. Thus, hypothesis 3c was not supported.

Table 16  
*Regression model of relationship conflict prime, SRC, and Depression*

	<i>b</i>	SE
<b>Step 1</b>		
<b>Group</b>	-.092	.096
<b>SRC</b>	.029	.055
<b>Step 2</b>		
<b>Group</b>	-.094	.096
<b>SRC</b>	.056	.078
<b>Interaction</b>	-.054	.110
<b>R<sup>2</sup></b>	.013	
<b>ΔR<sup>2</sup></b>	.002	

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

Notes. Group = experimental or control condition; SRC = sport-to-relationship conflict.

**Hypothesis 3d: RSC will predict depression. Specifically, participants with higher levels of RSC will report higher levels of depression than participants with lower levels of RSC.**

RSC was not a significant predictor of depression  $b = 0.148$ ,  $p = .105$  (see Table 17). That is, participants who reported higher levels of RSC were not more likely to report depression symptoms than those with lower levels of RSC. Therefore, hypothesis 3d was not supported.

**Hypothesis 3e: RSC will moderate the association between relationship conflict and depression. Specifically, participants who are primed for relationship conflict and have higher levels of RSC will report higher levels of depression than participants with lower levels of RSC.**

The full regression model predicted 3.8% of the variance in depression. The interaction between RSC and relationship conflict priming was not significant  $b = -0.141$ ,  $p = .440$  and it did not significantly contribute to the unique variance in the model,  $F(3, 106) = 1.385$ ,  $p = .252$ ,  $\Delta R^2 = .005$ . In other words, RSC did not moderate the association between relationship conflict prime and depression symptoms. Thus, hypothesis 3e was not supported.

Table 17  
*Regression model of relationship conflict prime, RSC, and Depression*

	<i>b</i>	SE
<b>Step 1</b>		
<b>Group</b>	-.078	.095
<b>RSC</b>	.148	.091
<b>Step 2</b>		
<b>Group</b>	-.081	.095
<b>RSC</b>	.216	.126
<b>Interaction</b>	-.141	.182
<b>R<sup>2</sup></b>	.038	
<b>ΔR<sup>2</sup></b>	.005	

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

Notes. Group = experimental or control condition; RSC = relationship-to-sport conflict.

**Hypothesis 3f: SRE will predict depression. Specifically, participants with higher levels of SRE will report lower levels of depression than participants with lower levels of SRE.**

SRE was a significant predictor of depression  $b = -0.143, p = .020$  (see Table 18). That is, participants who reported higher levels of SRE were less likely to report depression symptoms than those with lower levels of SRE. Therefore, hypothesis 3f was supported.

**Hypothesis 3g: SRE will moderate the association between relationship conflict and depression. Specifically, participants who are primed for relationship conflict and have higher levels of SRE will report lower levels of depression than participants with lower levels of SRE.**

The full regression model predicted 6.4% of the variance in depression. The interaction between SRE and relationship conflict priming was not significant  $b = -0.102, p = .404$  and it did not significantly contribute to the unique variance in the model,  $F(3, 106) = 2.410, p = .071, \Delta R^2 = .006$ . In other words, SRE did not moderate the association between relationship conflict prime and depression symptoms. Thus, hypothesis 3g was not supported.

Table 18  
*Regression model of relationship conflict prime, SRE, and Depression*

	<i>b</i>	SE
<b>Step 1</b>		
<b>Group</b>	-.083	.093
<b>SRE</b>	-.143*	.060
<b>Step 2</b>		
<b>Group</b>	-.080	.093
<b>SRE</b>	.099	.079

<b>Interaction</b>	-.102	.122
<b>R<sup>2</sup></b>	.064	
<b>ΔR<sup>2</sup></b>	.006	

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

Notes. Group = experimental or control condition; SRE = sport-to-relationship enrichment.

**Hypothesis 3h: RSE will predict depression. Specifically, participants with higher levels of RSE will report lower levels of depression than participants with lower levels of RSE.**

RSE was not a significant predictor of depression  $b = -0.063$ ,  $p = .363$  (see Table 19). That is, participants who reported higher levels of RSE were not less likely to report depression symptoms than those with lower levels of RSE. Therefore, hypothesis 3h was not supported.

**Hypothesis 3i: RSE will moderate the association between relationship conflict and depression. Specifically, participants who are primed for relationship conflict and have higher levels of RSE will report lower levels of depression than participants with lower levels of RSE.**

The full regression model predicted 2.5% of the variance in depression. The interaction between RSE and relationship conflict priming was not significant  $b = 0.142$ ,  $p = .309$  and it did not significantly contribute to the unique variance in the model,  $F(3, 106) = 0.923$ ,  $p = .433$ ,  $\Delta R^2 = .025$ . In other words, RSE did not moderate the association between relationship conflict prime and depression symptoms. Thus, hypothesis 3i was not supported.

Table 19  
*Regression model of relationship conflict prime, RSE, and Depression*

<b><i>b</i></b>	<b>SE</b>
-----------------	-----------

<b>Step 1</b>		
<b>Group</b>	-.090	.095
<b>RSE</b>	-.063	.069
<b>Step 2</b>		
<b>Group</b>	-.093	.095
<b>RSE</b>	-.138	.101
<b>Interaction</b>	.142	.139
<b>R<sup>2</sup></b>	.025	
<b>ΔR<sup>2</sup></b>	.010	

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

Notes. Group = experimental or control condition; RSE = relationship-to-sport enrichment.

**Hypothesis 4a: Participants primed for relationship conflict will report lower levels of relationship respect than those in the control group.**

Relationship conflict priming did not significantly predict relationship respect  $b = -0.184, p = .232$  (see Table 20). In other words, participants who were primed for relationship conflict did not report lower levels of relationship respect than participants who were not primed. Therefore, hypothesis 4a was not supported.

**Hypothesis 4b: SRC will predict relationship respect. Specifically, participants with lower levels of SRC will report higher levels of relationship respect than participants with higher levels of SRC.**

SRC was not a significant predictor of relationship respect  $b = -0.120, p = .174$ . That is, participants who reported lower levels of SRC were not more likely to report relationship respect than those with higher levels of SRC. Therefore, hypothesis 4b was not supported.

**Hypothesis 4c: SRC will moderate the association between relationship conflict and relationship respect. Specifically, participants who are primed for**

**relationship conflict and have lower levels of SRC will report higher levels of relationship respect than participants with higher levels of SRC.**

The full regression model predicted 3.2% of the variance in depression. The interaction between SRC and relationship conflict priming was not significant  $b = 0.022$ ,  $p = .898$  and it did not significantly contribute to the variance in the model,  $F(3, 106) = 1.164$ ,  $p = .327$ ,  $\Delta R^2 = .000$ . In other words, SRC did not moderate the association between relationship conflict prime and relationship respect. Thus, hypothesis 4c was not supported.

Table 20  
*Regression model of relationship conflict prime, SRC, and Respect*

	<i>b</i>	SE
<b>Step 1</b>		
<b>Group</b>	-.184	.153
<b>SRC</b>	-.120	.087
<b>Step 2</b>		
<b>Group</b>	-.183	.154
<b>SRC</b>	-.131	.126
<b>Interaction</b>	.022	.175
<b>R<sup>2</sup></b>	.032	
<b>ΔR<sup>2</sup></b>	.000	

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

Notes. Group = experimental or control condition; SRC = sport-to-relationship conflict.

**Hypothesis 4d: RSC will predict relationship respect. Specifically, participants with lower levels of RSC will report higher levels of relationship respect than participants with higher levels of RSC.**

RSC was a significant predictor of relationship respect  $b = -0.573$ ,  $p < .000$  (see Table 21). That is, participants who reported lower levels of RSC were more likely to

report relationship respect than those with higher levels of SRC. Therefore, hypothesis 4d was supported.

**Hypothesis 4e: RSC will moderate the association between relationship conflict and relationship respect. Specifically, participants who are primed for relationship conflict and have lower levels of RSC will report higher levels of relationship respect than participants with higher levels of RSC.**

The full regression model predicted 16.1% of the variance in relationship respect. The interaction between RSC and relationship conflict priming was not significant  $b = -0.284, p = .303$  and it did not significantly contribute to the unique variance in the model,  $F(3, 106) = 6.792, p < .000, \Delta R^2 = .008$ . In other words, RSC did not moderate the association between relationship conflict prime and relationship respect. Thus, hypothesis 4e was not supported.

Table 21  
*Regression model of relationship conflict prime, RSC, and Respect*

	<i>b</i>	SE
<b>Step 1</b>		
<b>Group</b>	-240	.143
<b>RSC</b>	-.573**	.137
<b>Step 2</b>		
<b>Group</b>	-.246	.143
<b>RSC</b>	-.436*	.190
<b>Interaction</b>	-.284	.274
<b>R<sup>2</sup></b>	.161**	
<b>ΔR<sup>2</sup></b>	.008	

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

Notes. Group = experimental or control condition; RSE = relationship-to-sport conflict.

**Hypothesis 4f: SRE will predict relationship respect. Specifically, participants with higher levels of SRE will report higher levels of relationship respect than participants with lower levels of SRE.**

SRE was not a significant predictor of relationship respect  $b = 0.111, p = .264$  (see Table 22). That is, participants who reported higher levels of SRE were not more likely to report relationship respect than those with lower levels of SRC. Therefore, hypothesis 4f was not supported.

**Hypothesis 4g: SRE will moderate the association between relationship conflict and relationship respect. Specifically, participants who are primed for relationship conflict and have higher levels of SRE will report higher levels of relationship respect than participants with lower levels of SRE.**

The full regression model predicted 4.4% of the variance in relationship respect. The interaction between SRE and relationship conflict priming was not significant  $b = -0.282, p = .159$  and it did not significantly contribute to the variance in the model,  $F(3, 106) = 1.641, p = .184, \Delta R^2 = .018$ . In other words, SRE did not moderate the association between relationship conflict prime and relationship respect. Thus, hypothesis 4g was not supported.

Table 22  
*Regression model of relationship conflict prime, SRE, and Respect*

	<i>b</i>	SE
<b>Step 1</b>		
<b>Group</b>	-.200	.153
<b>SRE</b>	.111	.099
<b>Step 2</b>		
<b>Group</b>	-.193	.152
<b>SRE</b>	.230	.130



<b>Interaction</b>	-.282	.199
<b>R<sup>2</sup></b>	.044	
<b>ΔR<sup>2</sup></b>	.018	

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

Notes. Group = experimental or control condition; RSE = sport-to-relationship enrichment.

**Hypothesis 4h: RSE will predict relationship respect. Specifically, participants with higher levels of RSE will report higher levels of relationship respect than participants with lower levels of RSE.**

RSE was a significant predictor of relationship respect  $b = 0.235, p = .034$  (see Table 23). That is, participants who reported higher levels of RSE were more likely to report relationship respect than those with lower levels of RSE. Therefore, hypothesis 4h was supported.

**Hypothesis 4i: RSE will moderate the association between relationship conflict and relationship respect. Specifically, participants who are primed for relationship conflict and have higher levels of RSE will report higher levels of relationship respect than participants with lower levels of RSE.**

The full regression model predicted 5.5% of the variance in relationship respect. The interaction between RSE and relationship conflict priming was not significant  $b = -0.020, p = .927$  and it did not significantly contribute to the variance in the model,  $F(3, 106) = 2.072, p = .108, \Delta R^2 = .000$ . In other words, RSE did not moderate the association between relationship conflict prime and relationship respect. Thus, hypothesis 4i was not supported. Table 24 provides a summary of the research hypotheses.

Table 23

*Regression model of relationship conflict prime, RSE, and Respect*

	<i>b</i>	SE
<b>Step 1</b>		
<b>Group</b>	-.192	.151
<b>RSE</b>	.235*	.110
<b>Step 2</b>		
<b>Group</b>	-.192	.151
<b>RSE</b>	.246	.160
<b>Interaction</b>	-.020	.221
<b>R<sup>2</sup></b>	.055	
<b>ΔR<sup>2</sup></b>	.000	

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

Notes. Group = experimental or control condition; RSE = relationship-to-sport enrichment.

Table 24  
*Hypotheses Summary*

Hypotheses	Supported
Hypothesis 1a: Participants primed for relationship conflict will report higher levels of athlete burnout than those in the control group.	No
Hypothesis 1b: SRC will predict athlete burnout. Specifically, participants with higher levels of SRC will report with higher levels of burnout than participants with lower levels of SRC.	Yes
Hypothesis 1c: SRC will moderate the association between relationship conflict and athlete burnout. Specifically, participants who are primed for relationship conflict and have higher levels of SRC will report higher levels of burnout than participants with lower levels of SRC.	Partially
Hypothesis 1d: RSC will predict athlete burnout. Specifically, participants with higher levels of RSC will report higher levels of burnout than participants with lower levels of RSC.	Yes
Hypothesis 1e: RSC will moderate the association between relationship conflict and athlete burnout. Specifically, participants who are primed for relationship conflict and have higher levels of RSC will report higher levels of burnout than participants with lower levels of RSC.	No

---

Hypothesis 1f: SRE will predict athlete burnout. Specifically, participants with higher levels of SRE will report lower levels of burnout than participants with lower levels of SRE.	Yes
Hypothesis 1g: SRE will moderate the association between relationship conflict and athlete burnout. Specifically, participants who are primed for relationship conflict and have higher levels of SRE will report lower levels of burnout than participants with lower levels of SRE.	No
Hypothesis 1h: RSE will predict athlete burnout. Specifically, participants with higher levels of RSE will report lower levels of burnout than participants with lower levels of RSE.	Yes
Hypothesis 1i: RSE will moderate the association between relationship conflict and athlete burnout. Specifically, participants who are primed for relationship conflict and have higher levels of RSE will report lower levels of athlete burnout than participants with lower levels of RSE.	No
Hypothesis 2a: Participants primed for relationship conflict will report lower levels of sport commitment enjoyment and support than those in the control group.	No
Hypothesis 2b: SRC will predict sport commitment enjoyment and support. Specifically, participants with lower levels of SRC will report higher levels of sport enjoyment and sport support than participants with higher levels of SRC.	Yes
Hypothesis 2c: SRC will moderate the association between relationship conflict and sport commitment enjoyment and support. Specifically, participants who are primed for relationship conflict and have lower levels of SRC will report higher levels of sport enjoyment and sport support than participants with higher levels of SRC.	No
Hypothesis 2d: RSC will predict sport commitment enjoyment and support. Specifically, participants with lower levels of RSC will report higher levels of sport enjoyment and sport support than participants with higher levels of RSC.	Partially
Hypothesis 2e: RSC will moderate the association between relationship conflict and sport commitment enjoyment and support. Specifically, participants who are primed for relationship conflict and have lower levels of RSC will report higher levels of	No

---

---

<p>sport enjoyment and sport support than participants with higher levels of RSC.</p>	
<p>Hypothesis 2f: SRE will predict sport commitment enjoyment and support. Specifically, participants with higher levels of SRE will report higher levels of sport enjoyment and sport support than participants with lower levels of SRE.</p>	Yes
<p>Hypothesis 2g: SRE will moderate the association between relationship conflict and sport commitment enjoyment and support. Specifically, participants who are primed for relationship conflict and have higher levels of SRE will report higher levels of sport enjoyment and sport support than participants with lower levels of SRE.</p>	No
<p>Hypothesis 2h: RSE will predict sport commitment enjoyment and support. Specifically, participants with higher levels of RSE will report higher levels of sport enjoyment and sport support than participants with lower levels of RSE.</p>	Yes
<p>Hypothesis 2i: RSE will moderate the association between relationship conflict and sport commitment enjoyment and support. Specifically, participants who are primed for relationship conflict and have higher levels of SRE will report higher levels of sport enjoyment and support than participants with lower levels of RSE.</p>	No
<p>Hypothesis 3a: Participants primed for relationship conflict will report higher levels of depression than those in the control group.</p>	No
<p>Hypothesis 3b: SRC will predict depression. Specifically, participants with higher levels of SRC will report higher levels of depression than participants with lower levels of SRC.</p>	No
<p>Hypothesis 3c: SRC will moderate the association between relationship conflict and depression. Specifically, participants who are primed for relationship conflict and have higher levels of SRC will report higher levels of depression than participants with lower levels of SRC.</p>	No
<p>Hypothesis 3d: RSC will predict depression. Specifically, participants with higher levels of RSC will report higher levels of depression than participants with lower levels of RSC.</p>	No
<p>Hypothesis 3e: RSC will moderate the association between</p>	No

---

---

relationship conflict and depression. Specifically, participants who are primed for relationship conflict and have higher levels of RSC will report higher levels of depression than participants with lower levels of RSC.	
Hypothesis 3f: SRE will predict depression. Specifically, participants with higher levels of SRE will report lower levels of depression than participants with lower levels of SRE.	Yes
Hypothesis 3g: SRE will moderate the association between relationship conflict and depression. Specifically, participants who are primed for relationship conflict and have higher levels of SRE will report lower levels of depression than participants with lower levels of SRE.	No
Hypothesis 3h: RSE will predict depression. Specifically, participants with higher levels of RSE will report lower levels of depression than participants with lower levels of RSE.	No
Hypothesis 3i: RSE will moderate the association between relationship conflict and depression. Specifically, participants who are primed for relationship conflict and have higher levels of RSE will report lower levels of depression than participants with lower levels of RSE.	No
Hypothesis 4a: Participants primed for relationship conflict will report lower levels of relationship respect than those in the control group.	No
Hypothesis 4b: SRC will predict relationship respect. Specifically, participants with lower levels of SRC will report higher levels of relationship respect than participants with lower levels of SRC.	No
Hypothesis 4c: SRC will moderate the association between relationship conflict and relationship respect. Specifically, participants who are primed for relationship conflict and have lower levels of SRC will report higher levels of relationship respect than participants with higher levels of SRC.	No
Hypothesis 4d: RSC will predict relationship respect. Specifically, participants with lower levels of RSC will report higher levels of relationship respect than participants with higher levels of RSC.	Yes

---

---

Hypothesis 4e: RSC will moderate the association between relationship conflict and relationship respect. Specifically, participants who are primed for relationship conflict and have lower levels of SRC will report higher levels of relationship respect than participants with higher levels of SRC.	No
Hypothesis 4f: SRE will predict relationship respect. Specifically, participants with higher levels of SRE will report higher levels of relationship respect than participants with lower levels of SRE.	No
Hypothesis 4g: SRE will moderate the association between relationship conflict and relationship respect. Specifically, participants who are primed for relationship conflict and have higher levels of SRE will report higher levels of relationship respect than participants with lower levels of SRE.	No
Hypothesis 4h: RSE will predict relationship respect. Specifically, participants with higher levels of RSE will report higher levels of relationship respect than participants with lower levels of RSE.	Yes
Hypothesis 4i: RSE will moderate the association between relationship conflict and relationship respect. Specifically, participants who are primed for relationship conflict and have higher levels of RSE will report higher levels of relationship respect than participants with lower levels of RSE.	No

---

## CHAPTER 4: DISCUSSION

The present study applied work-family conflict and enrichment theories to college student-athletes and their romantic relationships. College athletes spend roughly 30 hours per week engaged in their sport (Brown, 2014) and at the same time romantic relationships are commonly a top priority among college-aged individuals (LeSure-Lester, 2001). Thus, student-athletes are tasked with making time for two important yet separate, and at times competing interests and obligations – their sport and their romantic relationship. The results of this study show that sport-to-relationship conflict (SRC), relationship-to-sport conflict (RSC), sport-to-relationship enrichment (SRE) and relationship-to-sport enrichment (RSE) predicted athlete burnout and sport commitment, RSC and RSE predicted relationship respect, and SRE predicted depression. These results are consistent with previous research on work-family conflict and enrichment and provide evidence for the association between sport-relationship conflict and enrichment and the outcome variables. The only significant interaction effect was that SRC moderated the relationship between relationship conflict and athlete burnout. The following paragraphs discuss the main findings and their implications, as well as the limitations of the study and suggestions for future research.

### **Manipulation Check**

To determine whether the relationship conflict prime used in this study was effective participants rated their level of anxiety and anger following their exposure to the

experimental or control primes. Results revealed that being primed for relationship conflict resulted in higher levels of anger, but not anxiety than participants who were not primed. These results make sense because words associated with anger (e.g., frustration yelling, pissed off, and conflict) were used in the prime. These are words that less likely to be associated with anxiety.

### **Main Hypotheses Findings**

#### **Relationship conflict.**

Hypotheses 1a, 2a, 3a, and 4a posit that participants primed for relationship conflict will report higher levels of athlete burnout, lower levels of sport commitment, higher levels of depression and lower levels of relationship respect than those in the control group. The results of the current study do not support any of these hypotheses. Previous research on romantic relationship conflict concludes that relationship conflict is associated with depression (Fincham, 2003; Roberson, et al., 2015; Whisman & Uebelacker, 2009) and job satisfaction (Ford, Heinen, & Langkamer, 2007). Additionally, family-to-work conflict is associated with emotional exhaustion burnout (Cinamon, et al., 2007).

This discrepancy between previous findings and the current study findings may be due to the way participants were primed for relationship conflict or how actively and vividly participants engaged in imagining the prime about the conflict while completing the study survey. For example, 71.2% of participants in the experimental group reported that the scenario they read was “not at all” likely to occur in their life. Perhaps being primed for relationship conflict was not significantly associated with the outcome variables because the scenario lacked personal relevance for the majority of the



participants. Additionally, 16.9% of participants in the experimental group reported that they were “not at all” able to “vividly imagine the scenario [they] read about.” At the end of the survey 66.1% of participants in the experimental group reported that they were not thinking about the scenario they read at all. Another possible explanation for this discrepancy is that previous research findings were not specific to college students or student-athletes. The impact of relationship conflict may be different for student athletes than the general adult population. Additionally, it is plausible that engagement in sport is protective against the potentially negative effects of relationship conflict.

#### **Sport-relationship conflict.**

Hypotheses 1b, 2b, 3b, and 4b postulated that participants with higher levels of SRC would report higher levels of athlete burnout, lower levels of sport commitment, higher levels of depression and lower levels of relationship respect than participants with lower levels of SRC. Hypotheses 1d, 2d, 3d, and 4d stated that participants with higher levels of RSC would report higher levels of athlete burnout, lower levels of sport commitment, higher levels of depression and lower levels of relationship respect than participants with lower levels of RSC. These hypotheses were partially supported; SRC predicted athlete burnout and sport commitment in expected directions, and RSC predicted athlete burnout, sport commitment, and relationship respect.

These findings suggest that SRC is associated with sport outcomes but not relationship or emotional outcomes and RSC is associated with sport and relationship outcomes. The matching hypothesis within work-family conflict (WFC) literature, which asserts that the most salient impact of WFC occurs in the domain in which the conflict begins, (e.g., Amstad et al., 2011) can partially explain these results. Applying this

hypothesis to the current study, SRC should have a greater impact on sport related outcomes and RSC should have a greater impact on relationship outcomes.

Relationship respect has not been examined in WFC or WFE literature; however, the author hypothesized that both SRC and RSC would be associated with perceptions of low respect from partner. This hypothesis was based on previous research findings that showed an association between WFC and WFE and constructs like relationship satisfaction (Allen et al., 2000), relationship commitment, and psychological wellbeing (Allen et al., 2000; Amstad et al., 2011), which have been associated with relationship respect (Frei & Shaver, 2002; Hendrick & Hendrick, 2006; Owen et al., 2012). In the present study RSC significantly predicted relationship respect; however, SRC did not. It is possible that SRC did not predict relationship respect because participants attributed the cause of SRC to their sport rather than their relationship. Thus, participants' perceptions of their partners were unaffected because the cause of the conflict was not attributed to their relationship. However, when participants experienced higher levels of RSC they attributed this conflict to relationship qualities and thus their perception of their relationship and their partner were impacted (i.e., lower levels of perceived respect from partner). Participants may have thought, 'there must be a problem in my relationship or with my partner if it is spilling over into my sport.' The results of this study found a correlational, not causal relationship between RSC and relationship respect. Therefore, it is also possible that the belief that your partner respects you is protective against RSC and when one does not perceive respect from their partner they experience higher levels of RSC.

Surprisingly, and inconsistent with WFC literature (Allen et al., 2000; Amstad et al., 2011; Frone, 1992), neither SRC, nor RSC predicted depression. One potential explanation for this discrepancy is that sport engagement might be a protective factor against depression whereas work might not be. Although research regarding depression among college athletes is generally inconsistent (Armstrong & Oomen-Early, 2009), some findings suggest that depression rates are lower among student-athletes than their non-athlete counterparts (Proctor & Boan-Lenzo, 2010). Additionally, Armstrong and Oomen-Early (2009) found that athletes had higher levels of social connectedness and self esteem than non-athletes, which may help to protect against depression.

In the only other empirical study using a WFC framework with elite athletes, Jowett and Cramer (2009) found that negative spillover (a construct similar to work WFC) was positively correlated with self-reports of depression. One potential reason for the differences in the results of the present study and Jowett and Cramer's research may be due to the way depression was measured in the present study. This study used the SV-POMS depression-dejection subscale, which measured participants' depressive symptoms at the exact time they completed the survey. Participants were asked to respond to the questions based on how they were feeling "right now." The POMS was used because of its potential sensitivity to the priming prompts; however, it is possible that using a measure like the Center for Epidemiologic Studies Depression Scale (CES-D) or prompting participants to respond to the items based on how they were feeling over the past two weeks may have lead to a different outcome.

Although sport-relationship conflict was generally low, participants reported significantly more SRC than RSC. Meaning, their sport was more likely to spill over and

negatively impact their relationship than their relationship was to negatively impact their sport. Having to balance practice, competitions, academics, social relationships (Brougham et al., 2009; Kimball, 2007), and pressure to succeed (Benford, 2007), coupled with the time demands of college athletics (Brown, 2014) may explain why student-athletes experience higher levels of SRC than RSC. In the current study participants reported spending an average of 26 hours per week in their sport. Student-athletes may have difficulty managing the time commitments of their sport and as a result their sports negatively impact their romantic relationships.

#### **Sport-relationship conflict moderation.**

Hypotheses 1c, 2c, 3c, and 4c stated that SRC will moderate the association between relationship conflict and athlete burnout, sport commitment, depression, and relationship respect. Only hypothesis 1c was supported indicating that SRC moderated the association between relationship conflict and athlete burnout. The moderation was only significant at high levels of SRC and the nature of this moderation was unexpected. The author hypothesized an enhancing effect wherein participants who were primed for relationship conflict with higher levels of SRC would experience higher levels of burnout than participants with lower SRC. However, for participants with higher levels of SRC being primed for relationship conflict was associated with lower levels of burnout than being in the control condition.

One explanation for these results is that when people with high levels of SRC experience relationship conflict they may feel less commitment to their partner or devalue their relationship. Stanley, Markman, & Whitton (2002) found that negative patterns of interactions between romantic partners are negatively correlated with relationship

commitment. Lower commitment or value of their relationship may result in caring less about the impact their sport has on their relationship. This lack of concern may buffer against athlete burnout because the student-athlete may feel less responsibility to balance the demands of their sport and their relationship. Alternatively, people with high levels of SRC who are not experiencing relationship conflict may have higher levels of dedication commitment to their partner. Dedication commitment “describes the intrinsic desire to be with one's partner. It encompasses couple identity (e.g., “we are a team”), having a long-term view of the relationship, making the relationship a priority, and making sacrifices for one's partner or the good of the relationship” (Owen et al., 2011, p2). It is possible that being more dedicated to a romantic partner would result in participants feeling guilty about the negative impact their sport has on their relationship. Therefore, they may make sport related sacrifices and thus feel more burnout in sport.

An additional explanation for these results may be related to physiological responses to conflict. For example, Robles and Kiecolt-Glaser (2003) found that hostile behavior during relationship conflict is related to physiological changes including increased levels of adrenocorticotrophic hormone (ACTH). It is possible that participants in the present study who were primed for relationship conflict experienced psychological changes or increased arousal. Since one key characteristic of burnout is exhaustion, it is possible that an increase in arousal led to lower reports of athlete burnout.

Hypotheses 1e, 2e, 3e, and 4e posited that RSC will moderate the association between relationship conflict and athlete burnout, sport commitment, depression, and relationship respect. None of these hypotheses were supported. One potential explanation for the lack of interaction is that the range of participants' responses for RSC was small

and skewed with participants reporting generally low conflict levels. The small range may have limited the ability to test differences in the association between relationship conflict and the outcome variables at various levels of sport-relationship conflict. Additionally, the present study had a relatively small sample size to obtain enough power to detect significant moderation effects.

### **Sport-relationship enrichment.**

Hypotheses 1f, 2f, 3f, and 4f stated that participants with higher levels of SRE would report lower levels of athlete burnout, higher levels of sport commitment, lower levels of depression and higher levels of relationship respect than participants with lower levels of SRE. Hypotheses 1h, 2h, 3h, and 4h predicted that participants with higher levels of RSE would report lower levels of burnout, higher levels of sport commitment, lower levels of depression and higher levels of relationship respect than participants with lower levels of RSE. These hypotheses were partially supported; SRE predicted all outcome variables in the expected directions with the exception of relationship respect, and RSE predicted all outcome variables in the expected directions with the exception of depression.

These results are somewhat consistent with previous studies on WFE. In their meta analysis McNall, Nicklin, & Nasydam (2010) found that both work-to-family and family-to-work enrichment are positively correlated with family satisfaction and affective organizational commitment – a construct similar to sport commitment (enjoyment) – and negatively correlated with mental health outcomes like depression. Results of individual studies suggest that work-to-family facilitation (a concept similar to WFE) is negatively correlated with burnout (Innstrand et al., 2008).

The results of the present study are congruent with the matching hypothesis, meaning enrichment beginning in the relationship domain had a greater impact on relationship related outcomes than sport related outcomes and vice versa. Although the results of the present study are not casual, it is possible that SRE and RSE protect against athlete burnout among student-athletes and lead to higher levels of sport commitment. Practically this makes sense because when sport-relationship enrichment occurs, positive aspects from one domain can be used to improve or support the other domain (Marks, 1977).

The results indicate that SRE is significantly associated with depression but RSE is not. As previously mentioned, the potentially protective nature of sport engagement may explain these results. For example, feeling happy in sport and personally fulfilled (items on the SRE scale) may be associated with lower rates of depression. Further examination of this explanation is needed to better understand the impact of SRE and RSE on depression symptoms. Results also indicated that RSE is associated with relationship respect; however, SRE is not. The respect for partner scale used in the present study measured participants' perceptions of their partners respect for them. It is possible that when the benefits of sport participation spillover into one's relationship participants do not attribute that spillover to their partner or their romantic relationship, rather they attribute it to their sport. Therefore, the experience of SRE would not predict higher levels of relationship respect.

Participants in the present study reported generally high and similar levels of SRE and RSE suggesting that student-athletes' sport spills over and positively impacts their relationship and their relationship positively impacts their sport. This supports Sieber

(1974) and Marks' (1977) theories about the benefits of multiple roles. They stated that resources, energy, and positive affect acquired through participation one role can be utilized to improve participation in other roles. In the present study, SRE was significantly higher among participants whose partners were also student-athletes. Therefore, the high levels of SRE may also be attributed to the fact that the majority (57.9%) of participants had romantic partners who were Division I, II, or III student athletes. Presumably, having a partner who is also an athlete allows for a mutual understanding of the demands of college athletics resulting in higher levels of enrichment.

Based on the sport-relationship enrichment and conflict results combined it appears that being in the role of an athlete and romantic partner simultaneously had a positive impact on the participants. Additionally, the results of this study confirm the proposition that work-to-family and family-to-work conflict and enrichment are distinct constructs that have the capacity to impact individuals in unique ways.

#### **Sport-relationship enrichment moderation.**

Hypotheses 1g, 2g, 3g, 4g and 1h, 2h, 3h, and 4h stated that SRE and RSE will moderate the association between relationship conflict and athlete burnout, sport commitment, depression, and relationship respect. None of these hypotheses were supported. As previously stated with regard to the sport-relationship conflict hypotheses, it is possible that range restriction of SRE and RSE – most participants reported high levels of sport-relationship enrichment – limited the ability to examine the association between relationship conflict and the outcome variables at different levels of SRE and RSE.



## **Limitations**

Several limitations should be noted that might have impacted the findings of the study. The most salient limitation of this study is the small sample size. The a priori power analysis indicated that the necessary sample size for a regression analysis was 109 participants. However, this small sample sizes makes it difficult to obtain enough power for significant interaction effects. It is possible that with a larger sample size additional moderation effects could have been discovered.

An additional data collection and sample related limitation is that convenience sampling was used which likely resulted in sampling bias (Fowler, 2009). Similarly, almost every participant identified as White and being in a heterosexual relationship, and well over half the sample was female. These sampling limitations prohibit demographic comparisons and generalizability of the findings.

There are also study design limitations. For example, the RSC measure had a low alpha (.51) indicating low scale reliability. The low reliability of this scale may be partially attributed to the scale being comprised of only three items. Additionally, the scale used in this study was modified from the original version wherein the word ‘work’ and ‘family’ were changed to ‘sport’ and ‘relationship.’ It is possible that this modification impacted the reliability of the scale. The vignette use to prime participants in the experimental group is another limitation. Although the author conducted a pilot study to examine the efficacy of the prime, the author did not test the prime on college athletes. Many participants in the current study reported that the scenario they read about was not at all likely to occur in their lives. The lack of personal relevance of the prime may have impacted the results. Additionally, the survey took 20-30 minutes to complete,

thus, it is possible that participants were fatigued or bored by the end of the survey leading to inaccurate self-report.

Finally, in this study 32.5% of participants reported that they were in a long distance relationship. However, the study did not examine differences between long distance and close proximity romantic relationships. This could be a potential problem because the relationship quality of long distance relationships differs from close proximity relationships (Kelmer, Rhoades, Stanley, & Markman, 2012) and these differences may affect the data.

## **Implications**

### **Practical implications.**

This study provides a unique contribution to work-family conflict and enrichment literature, as well as sport psychology and romantic relationship literature by being the first empirical research study to examine sport-relationship conflict and enrichment among a college athlete population. With roughly 420,000 NCAA student-athletes (NCAA, 2015), the results of this study have the potential to have vast practical and research implications.

The results show that relationship conflict (as it was measured in this study) does not impact student-athletes' burnout, sport commitment, depression, or perception of relationship respect; however, sport-relationship conflict negatively impacts these outcomes and sport-relationship enrichment positively impacts these outcomes. These results can inform the work of athletic administrators, academic advisors, coaches, sports medicine staff, and psychologists, and provide a framework for student-athlete workshops and psychological intervention.

From a college athletics programmatic level, this research can inform the workshops and mandatory informational sessions college athletes attend throughout the school year. As a preventative intervention, workshops could provide student-athletes with information about sport-relationship conflict and enrichment and their potential implications. They could present tips for managing multiple role demands and coping with stress. Student-athletes could be encouraged to pay attention to the ways in which their sport impacts their relationship and vice versa and be given information about how and where to seek support. In addition to educating student-athletes, this research can inform the training that coaches, academic advisors, athletic trainers, and sport psychologists receive. At the beginning of an academic year individuals who are supporting student-athletes can be trained about sport-relationship conflict and enrichment and how to help student-athletes manage their multiple role demands.

In terms of implementing these programs, facilitators would need buy-in from the school, coaches, and athletes. Each school and team differs in the degree to which they appreciate and are interested in such programs; and generally, coaches will have to be receptive to these workshops in order for student-athletes to be receptive. To gain buy-in from coaches and ultimately student-athletes, facilitators could inform coaches of the burnout and sport commitment implications of sport-relationship conflict and enrichment, and present the workshops to coaches as a way to mitigate burnout and improve sport commitment. Workshops can be tailored to meet the needs of the individual teams.

Psychological interventions could be aimed at identifying student-athletes who have high levels of sport-relationship conflict and helping them mitigate the negative impact of their conflict. Burnout and sport commitment were consistently associated with

sport-relationship conflict and enrichment in the present study. Therefore, psychological interventions could focus on helping student-athletes improve commitment and reduce burnout. For example, student-athletes could be taught mindfulness as a way to bring their attention and focus to the present moment/activity/role. Additionally, student-athletes can be taught practical coping skills like taking rest days, self-care, and positive self talk (Raedeke & Smith, 2004) to help manage the demands of their sport and relationship. Furthermore, a student-athlete skills based therapy group could provide athletes with a space to process their experiences having multiple role demands and learn skills to manage such demands.

The results of the present study also show that sport-relationship enrichment positively impacts sport, relationship, and psychological outcomes. As such, individuals who are supporting student-athletes can use a strengths based approach by helping student-athletes identify and capitalize on the ways in which their sport and relationship roles can improve one another. For example, athletes might learn to manage conflict through their participation on a team and they can use those skills to manage conflict in their relationship. Learning to capitalize on the ways in which sports and relationships can enrich each other might help to protect against things like athlete burnout and depression.

### **Research implications.**

As the first study of its kind, this research provides initial foundational information about the impact of sport-relationship conflict and enrichment on specific sport, emotional, and relational outcomes. This study has the capability of informing future research in this area.

## **Future Research**

Future research is needed to further examine the significant moderation effect found in the present study, the antecedents of sport-relationship conflict and enrichment, and variables that moderate the relationship between sport-relationship conflict and enrichment and burnout and sport commitment. Additionally, a major limitation of the current study is the lack of racial and gender diversity among the sample. Future research should aim to examine sport-relationship conflict and enrichment among student-athletes of color, individuals who identify as male, and LGBTQ populations.

In the present study, participants with high levels of SRC in the experimental group reported lower levels of athlete burnout than participants with high levels of SRC in the control group. The author hypothesized that this moderation effect might be related to relationship commitment. To help explain these results, future research could examine the associations between dedication commitment (Stanley & Markman, 1992) and relationship conflict, SRC, and athlete burnout.

Considering that sport-relationship conflict and enrichment were significantly associated with most of the outcome variables in this study, it would be beneficial to gain an understanding of factors that predict or cause sport-relationship conflict and enrichment. Scholars have identified a number of antecedents of work-family conflict and enrichment including but not limited to: Role stressors (e.g., job and family stressors), role involvement and commitment, social support, organizational support, organizational culture, family conflict, schedule flexibility, and hours spent working (Byron, 2005; Michel et al., 2011; Wayne et al., 2006). Examining the associations between some of these variables and sport-relationship conflict and enrichment would be a good starting

point for understanding potential antecedents of sport-relationship conflict and enrichment. For example, researchers could examine whether partner support or team culture predicts sport-relationship conflict and enrichment. This type of research could inform sport psychology interventions and changes within the culture of college athletics.

Similarly, an examination of variables that moderate the relationship between sport-relationship conflict and enrichment and athlete burnout, sport commitment, depression, and relationship respect is worthy next step. MacKinnon (2011) suggests that an examination of moderation variables can help to understand whether an independent variable has a similar impact on an outcome variable across different groups of people. Examining moderation variables like age, gender, time devoted to sport, and having a partner who is also a student-athlete can help to identify populations of people that may be more likely to be impacted by sport-relationship conflict and enrichment. This type of research would help to target interventions for student-athletes.

## **Conclusion**

This is the first empirical study to examine sport-relationship conflict and enrichment on college student-athletes. The findings presented in this paper provide a foundation of knowledge that can help inform future research in this area. These results have implications for programing and workshops in athletic departments as well as team and individual sport psychology interventions.

## REFERENCES

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Allen, T. D., Herst, D. E. L., Bruck, C. S., & Sutton, M. (2000). Consequences associated with work-to-family conflict: A review and agenda for future research. *Journal of Occupational Health Psychology, 5*(2), 278–308.
- Amstad, F. T., Meier, L. L., Fasel, U., Elfering, A., & Semmer, N. K. (2011). A meta-analysis of work-family conflict and various outcomes with a special emphasis on cross-domain versus matching-domain relations. *Journal of Occupational Health Psychology, 16*(2), 151–69.
- Armstrong S, & Oomen-Early J. (2009). Social connectedness, self-esteem, and depression symptomatology among collegiate athletes versus non athletes. *Journal of American College Health, 57*(5), 521–6.
- Arnold Leunes & Jolee Burger (2000) Profile of mood states research in sport and exercise psychology: Past, present, and future. *Journal of Applied Sport Psychology, 12*(1), 5-15,
- Bacon, V. L., & Russell, P. J. (2004). Addiction and the college athlete: The Multiple Addictive Behaviors Questionnaire (MABQ) with college athletes. *The Sport Journal, 7*(2). Retrieved from <http://thesportjournal.org/article/addiction-and-the-college-athlete-the-multiple-addictive-behaviors-questionnaire-mabq-with-college-athletes/>.
- Beedie, C. J., Terry, P. C., & Lane, A. M. (2000). The profile of mood states and athletic

- performance: Two meta-analyses. *Journal of Applied Sport Psychology*, 12(1), 49-68.
- Benford, R. D. (2007). The college sports reform movement: Reframing the “edutainment” industry. *The Sociological Quarterly*, 48(1), 1–28.
- Bengtsson, S., & Johnson, U. (2012). Time, money and support: Student-athletes’ transition to high achievement in sport. *Athletic Insight*, 4(2), 97-114.
- Bollen, K. A., & Stine, R., (1990). Direct and indirect effects: Classical and bootstrap estimates of variability. *Sociological Methodology*, 20(1), 115-40.
- Brougham, R. R., Zail, C. M., Mendoza, C. M., & Miller, J. R. (2009). Stress, sex differences, and coping strategies among college students. *Current Psychology*, 28(2), 85–97.
- Brown, G. T. (2014). *Mind, body and sport understanding and supporting student-athlete mental wellness*. Indianapolis, IN: National Collegiate Athletic Association.  
Retrieved from <https://www.ncaapublications.com/p-4375-mind-body-and-sport-understanding-and-supporting-student-athlete-mental-wellness.aspx>
- Dawson, J. F. (2014). Moderation in management research: What, why, when and how. *Journal of Business and Psychology*, 29, 1-19.
- Campbell, K., Hosseini, C., Myers, K., Calub, N. (2016). Does love influence athletic performance? The perspectives of Olympic athletes. *Review of European Studies*, 8(2), 1-7.
- Campbell, L., Martin, R. A., & Ward, J. R. (2008). An observational study of humor use while resolving conflict in dating couples. *Personal Relationships*, 15(1), 41–55.
- Carlson, D. S., Kacmar, M. K., Wayne, J. H., & Grzywack, J. G. (2006). Measuring the



- positive side of the work-family interface: Development and validation of a work-family enrichment scale. *Journal of Vocational Behavior*, 68(1), 131-164.
- Carlson, D. S., Kacmar, M. K., & Williams, L. J. (2000). Construction and initial validation of a multidimensional measure of work-family conflict. *Journal of Vocational Behavior*, 56(2), 249-276.
- Carpenter, P. J., & Coleman, R. (1998). A longitudinal study of elite youth cricketers' commitment. *International Journal of Sport Psychology*, 29(3), 195-210.
- Casper, J. M., Gray, D. P., & Stellino, M. B. (2007). A sport commitment model perspective on adult tennis players' participant frequency and purchase intention. *Sport Management Review*, 10(3), 253-278.
- Chen, S., Snyder, S., & Magner, M. (2010). The effects of sport participation on student-athletes' and non-athlete students' social life and identity. *Journal of Issues in Intercollegiate Athletics*, 3, 176-193
- Cinamon, R. G., Rich, Y., & Westerman, M. (2007). Teachers' occupation-specific work-family conflict. *The Career Development Quarterly*, 55(3), 249-261.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences*. New York, NY: Routledge.
- Cox, R.H. (2012). *Sport psychology: Concepts and applications (7th ed.)*. Boston: McGraw-Hill.
- DiLorenzo, T. A., Bovbjerg, D. H., Montgomery, G. H., Valdimarsdottir, H., & Jacobsen, P. B. (1999). The application of a shortened version of the profile of mood states in a sample of breast cancer chemotherapy patients. *British Journal of Health*

*Psychology*, 4(4), 315- 325

- Dixon, M. A., & Bruening, J. E. (2005). Perspectives on work-family conflict in sport: An integrated approach. *Sport Management Review*, 8(3), 227-253.
- Donohue, B., Miller, A., Crammer, L., Cross, C., & Covassin, T. (2007). A standardized method of assessing sport specific problems in the relationships of athletes with their coaches, teammates, family and peers. *Journal of Sport Behavior*, 30(4), 375-397.
- Edwards, J. R., & Rothbard, N. P. (2000). Mechanisms linking work and family: Clarifying the relationship between work and family constructs. *Academy of Management Review*, 25(1), 178–199.
- Faul, F., Erdfelder, E., Lang, A., & Buchner, A. (2007). G\*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39(2), 175-191.
- Fincham, F.D. (2009). Marital conflict. *Encyclopedia of Human Relationships*. Vol 1 (pp. 298-303).
- Fincham, F.D. (2003). Marital conflict: Correlates, structure and context. *Current Directions in Psychological Science*, 12(1), 23-27.
- Fincham, F.D., & Beach, S.R. (1999). Conflict in marriage: Implications for working with couples. *Annual Review of Psychology*, 50, 47-77.
- Forbes, G. B., Adams-Curtis, L. E., Pakalka, A. H., & White, K. B. (2006). Dating aggression, sexual coercion, and aggression supporting attitudes among college men as a function of participation in aggressive high school sports. *Violence Against Women*, 12(5), 441-455.

- Ford, M. T., Heinen, B. A., & Langkamer, K. L. (2007). Work and family satisfaction and conflict: A meta-analysis of cross-domain relations. *Journal of Applied Psychology, 92*(1), 57–80.
- Floyd J. Fowler, Jr. (2009). *Survey Research Methods*, 4th Ed. Thousand Oaks, CA: Sage Publications.
- Frazier, P. A., Tix, A. P., & Barron, K. E. (2004). Testing moderator and mediation effects in counseling psychology research. *Journal of Counseling Psychology, 51*(1), 115-134.
- Frei, J. R., & Shaver, P. R. (2002). Respect in close relationships: Prototype definition, Self report assessment, and initial correlates. *Personal Relationships, 9*(2), 121–139.
- Frone, M. R., Russell, M., & Cooper, M. L. (1992). Antecedents and outcomes of work–family conflict: Testing a model of the work–family interface. *Journal of Applied Psychology, 77*(1), 65–78.
- Frone, M.R., Russell, M., & Cooper, M.L. (1997). Relation of work-family conflict to health outcomes: A four-year longitudinal study of employed parents. *Journal of Occupational and Organizational Psychology, 70*(4), 325–335.
- Gill, D. S., Christensen, A., & Fincham, F. D. (1999). Predicting marital satisfaction from behavior: Do all roads really lead to Rome? *Personal Relationships, 6*(3), 369–387.
- Goodger, K., Wolfenden, L., & Lavalley, D. (2007). Symptoms and consequences associated with three dimensions of burnout in junior tennis players. *International Journal of Sport Psychology, 38*(4), 342–364.

- Gordon, A. M., & Chen, S. (2016). Do you get where I'm coming from?: Perceived understanding buffers against the negative impact of conflict on relationship satisfaction. *Journal of Personality and Social Psychology*, 110(2), 239-260.
- Gottman, J. M. (1994). *Why marriages succeed or fail and how you can make yours last*. New York, NY: Simon & Schuster.
- Greenleaf, C., Petrie, T. A., Carter, J., Reel, J. J. (2009). Female collegiate athletes: Prevalence of eating disorders and disordered eating behaviors. *American College Health*, 57(5), 489-495.
- Greenhaus, J. H., & Beutell, N. J. (1985). Sources of conflict between work and family roles. *Academy of Management Review*, 10(1), 76-88.
- Greenhaus, J. H., & Powell, G. N. (2006). When work and family are allies: A theory of work-family enrichment. *Academy of Management Review*, 31(1), 72-92.
- Gustafsson, H., Hassmen, P., Kentta, G., & Johansson, M. (2008). A qualitative analysis of burnout in elite Swedish athletes. *Psychology of Sport & Exercise*, 9(6), 800-816.
- Hanton, S., Evans, L. and Neil, R. (2003) Hardiness and the competitive trait anxiety response. *Anxiety, Stress and Coping: An International Journal*, 16(2), 167-184.
- Hendrick, S. S., & Hendrick, C. (2006). Measuring respect in close relationships. *Journal of Social and Personal Relationships*, 23(6): 881-899
- Howard-Hamilton, M. F., & Sina, J. A. (2001, Spring). How college affects student athletes. *New Directions for Student Services*, 93(35), 35-45.
- Hysenbegasi, A., Hass, S.L., & Rowland, C.R. (2005). The impact of depression on the

- academic productivity of university students. *Journal of Mental Health, Policy, and Politics*, 8(3), 145-151.
- Innstrand, S.T., Melbye Langbelle, E., Arild Espnes, G., & Gjerlow Aasland, O. (2008), Positive and negative work-family interaction and burnout: A longitudinal study of reciprocal relations. *Work & Stress*, 22(1), 1-15.
- Iso-Ahola, S. E., (1995). Intrapersonal and interpersonal factors in athletic performance. *Scandinavian Journal of Medicine & Science in Sports*, 5(4), 191-199.
- Jackson, L. M., Esses, V. M., & Burriss, C. T. (2001). Contemporary sexism and discrimination: The importance of respect for men and women. *Personality and Social Psychology Bulletin*, 27(1), 48–61.
- Jolly, C. J. (2008). Raising the question #9 is the student-athletes population unique? And why should we care? *Communication Education*, 57(1), 145-151.
- Jowett, S. (2007). Professional athletes' personal relationships: Functionality of personal relationships in the face of work stressors: Full research report. ESRC End of Award Report, RES-00-22-0855. Swindon: ESRC.
- Jowett, S., & Cramer, D. (2009). The role of romantic relationships on athletes' performance and well-being. *Journal of Clinical Sports Psychology*, 3(1), 58-72.
- Kacmar, M. K., Crawford, W. S., Carlson, D. S., Ferguson, M., & Whitten, D. (2014). A short and valid measure of work-family enrichment. *Journal of Occupational Health Psychology*, 19(1), 32-45.
- Kahn, R. L., Wolfe, D. M., Quinn, R. P., Snoek, J. D., & Rosenthal, R. A. (1964). *Organizational stress*. New York, NY: Wiley.
- Kanter, R. M. (1977). *Work and family in the United States: A critical review and agenda*

*for research and policy*. New York, NY: Russell Sage Foundation.

- Karney, B. R., & Bradbury, T. N. (1995). The longitudinal course of marital quality and stability: A review of theory, method, and research. *Psychological Bulletin*, 118(1), 3–34.
- Kelmer, G. Rhoades, G. K., Stanley, S., Markman, H. J. (2013). Relationship quality, commitment, and stability in long-distance relationships. *Family Process*, 52(2), 257-270.
- Kimball, A. C. (2007). “You signed the line”: Collegiate student athletes’ perceptions of autonomy. *Psychology of Sport and Exercise*, 8(5), 818–835.
- Kjormo, O., & Halvari, H. (2002). Relation of burnout with lack of time for being with significant others, role conflict, cohesion, and self-confidence among Norwegian Olympic athletes. *Perceptual and Motor Skills*, 94(3), 795-804.
- Kossek, E. E., & Ozeki, C. (1998). Work–family conflict, policies, and the job–life satisfaction relationship: A review and directions for organizational behavior–human resources research. *Journal of Applied Psychology*, 83(2), 139–149.
- Larzelere, R. E., & Huston, T. L. (1980). The dyadic trust scale: Toward understanding interpersonal trust in close relationships. *Journal of Marriage and the Family*, 42(3), 595-604.
- Markman, H., Stanley, S., & Blumberg, S. L. (1994). *Fighting for your marriage: Positive steps for preventing divorce and preserving a lasting love*. San Francisco, CA: Jossey-Bass.
- Marks, S. R. (1977). Multiple roles and role strain: Some notes on human energy, time and commitment. *American Sociological Review*, 42(6), 921-936.

- Masuda, A. D., McNall, L. A., Allen, T. D., & Nicklin, J. M. (2012). Examining the constructs of work-to-family enrichment and positive spillover. *Journal of Vocational Behavior, 80*(1), 197-210.
- Matthews, R. A., Kath, L. M., & Barnes-Farrell, J. L. (2010). A short, valid, predictive measure of work-family conflict: Item selection and scale validation. *Journal of Occupational Health Psychology, 15*(1), 75-90.
- McNall, L. A., Nicklin, J. M., & Masuda, A. D. (2010). A meta-analytic review of the consequences associated with work-family enrichment. *Journal of Business Psychology, 25*(3), 381-396.
- Melendez, M. (2007). The influence of athletic participation on the college adjustment of freshman and sophomore student athletes. *Journal of College Student Retention, 8*(1), 39-55.
- Meyer, J. P., & Allen, N. J. (1984). Testing the “side-bet theory” of organizational commitment: Some methodological considerations. *Journal of Applied Psychology, 69*(3), 372–378
- Monk, K. J., Vennum, A. V., Ogolsky, B. G., & Fincham, F. D. (2014). Commitment and sacrifice in emerging adult romantic relationships. *Marriage and Family Review, 50*(5), 416-434.
- NCAA (2015). About: NCAA’s three divisions. Retrieved from <http://www.ncaa.org/about/ncaa Brougham Brougham s-three-divisions>.
- Nicholls, A.R., Polman, R., Levy, A.R., Taylor, J., & Cobley, S. (2007). Stressors, coping, and coping effectiveness: Gender, type of sport, and skill differences. *Journal of Sports Sciences, 25*(13), 1521–1530.

- Owen, J., Quirk, K., & Manthos, M. (2012). I get no respect: The relationship between betrayal trauma and romantic relationship functioning. *Journal of Trauma and Dissociation*, 13(2), 175-189.
- Owen, J., Rhoades, G. K., Stanley, S. M., & Markman, H. J. (2011). The revised commitment inventory: Psychometrics and use with unmarried couples. *Journal of Family Issues*, 32(6), 820-841.
- Payne, E. (2012, August 31). *Ex-Virginia lacrosse player sentenced to 23 years in ex-girlfriend's killing*. Cable News Network (CNN). Retrieved from <http://www.cnn.com/2012/08/30/justice/virginia-lacrosse-student-trial/>.
- Proctor, S. L., & Boan-Lenzo, C. (2010). Prevalence of depressive symptoms in male intercollegiate student-athletes and nonathletes. *Journal of Clinical Sport Psychology*, 4(3), 204-220.
- Qu, H., & Zhao, X. (2012). Employees' work-family conflict moderating life and job satisfaction. *Journal of Business Research*, 65(1), 22-28.
- Raedeke, T. D., & Smith, A. L. (2001). Development and preliminary validation of an athlete burnout measure. *Journal of Sport & Exercise Psychology*, 23(4), 281.
- Raedeke, T. D., & Smith, A. L. (2004). Coping resources and athlete burnout: An examination of stress mediated and moderation hypotheses. *Journal of Sport & Exercise Psychology*, 26, 525-541.
- Reese-Weber, M., Kahn, J. H., & Nemecek, R. (2015). Topics of conflict in emerging adults' romantic relationships. *Emerging Adulthood*, 3(5), 320-326.
- Rhoades, G. K., Stanley, S. M., & Markman, H. J. (2010). Should I stay or should I go? Predicting dating relationship stability from four aspects of commitment. *Journal*



- of Family Psychology*, 24(5), 543-550.
- Robles, T. F., Shafefer, V. A., Kiecolt-Glaser, J. K. (2006). Positive behaviors during marital conflict: Influences on stress hormone. *Journal of Social and Personal Relationships*, 23(2), 305-325.
- Rusbult, C. E. (1980). Commitment and satisfaction in romantic associations: A test of the investment model. *Journal of Experimental Social Psychology*, 16(2), 172-186
- Scanlan, T. K., Carpenter, P. J., Simons, J. P., Schmidt, G. W., & Keeler, B. (1993a). An introduction to the sport commitment model. *Journal of Sport and Exercise Psychology*, 15(1), 1-15.
- Scanlan, T. K., Carpenter, P. J., Simons, J. P., Schmidt, G. W., & Keeler, B. (1993b). The sport commitment model: Measurement development for the youth-sport domain. *Journal of Sport and Exercise Psychology*, 15(1), 16-36
- Scanlan, T. K., Russell, D. G., Wilson, N. C., & Scanlan, L. A., (2003). Project on Elite Athlete Commitment (PEAK): I. Introduction and methodology. *Journal of Sport and Exercise Psychology*, 25(3), 360-376.
- Schenewark, J. D., & Dixon, M. A., (2012). A dual model of work-family conflict and enrichment in collegiate coaches. *Journal of Issues in Intercollegiate Athletics*, 5, 15-39.
- Schmidt, G. W., & Stein, G. L. (1991). Sport commitment: A model integrating enjoyment, dropout, and burnout. *Journal of Sport and Exercise Psychology* 13(3), 254-265.
- Shacham, S. (1983). A shortened version of the profile of mood states. *Journal of Personality Assessment*, 47(3), 305-306.

- Sieber, S. D. (1974). Toward a theory of role accumulation. *American Sociological Review*, 39(4), 567-578.
- Smith, R.E. (1986). Toward a cognitive-affective model of athlete burnout. *Journal of Sport Psychology*, 8(1), 36-50.
- Smith, R. E., (2006). Understanding sport behavior: A cognitive-affective processing systems approach. *Journal of Applied Sport Psychology*, 18(1), 1-27.
- Sonderlund, A. L., O'Brien, K., Kremer, P., Rowland, B., De Groot, F., Staiger, P., Zinkewixz, K., & Miller, P. G. (2013). The association between sports participation, alcohol use and aggression and violence: A systematic review. *Journal of Science and Medicine in Sport*, 17(1), 2-7.
- Stanley, S. M., Markman, H. J. (1992). Assessing commitment in personal relationships. *Journal of Marriage and the Family*, 54(3), 595-608.
- Stanley, S. M., Markman, H. J., & Whitton, S. W. (2002). Communication, conflict, and commitment: Insights on the foundations of relationship success from a national survey. *Family Process*, 41(4), 659-675.
- Stith, S. M., Smith, D. B., Penn, C. E., Ward, D. B., & Tritt, D. (2004). Intimate partner physical abuse perpetration and victimization risk factors: A meta-analytic review. *Aggression and Violent Behavior*, 10(1), 65-98.
- Terry, P. C., Lane, A. M., & Fogarty, G. J. (2003). Construct validity of the profile of mood states - adolescents for use with adults. *Psychology of Sport and Exercise*, 4(2), 125-139.
- Watson, J. C. (2005). College Student-Athletes' Attitudes Toward Help-Seeking Behavior and Expectations of Counseling Services. *Journal of College Student*

*Development*, 46(4),442-449.

- Watson, J. C, & Kissinger, D. B. (2007). Athletic participation and wellness: Implications for counseling college student-athletes. *Journal of College Counseling*, 10(2), 153-162.
- Wayne, J. H., Musisca, N., & Fleeson, W. (2004). Considering the role of personality in the work–family experience: Relationships of the Big Five to work–family conflict and facilitation. *Journal of Vocational Behavior*, 64(1), 108–130.
- Weiss, W. M. (2015) Competitive-level differences on sport commitment among high school- and collegiate-level athletes. *International Journal of Sport and Exercise Psychology*, 13(3), 286-303.
- Westermann, R., Spies, K., Stahl., & Hesse, F. W. (1996). Relative effectiveness and validity of mood induction procedures: A meta-analysis. *European Journal of Social Psychology*, 26(4), 557-580.
- Wilson, G., & Pritchard, M. (2005). Comparing sources of stress in college student athletes and non-athletes. *Athletic Insight*, 7(1), 1–8.
- Wolanin, A., Hong, E., Marks, D., Panchoo, K., & Gross, M. (2016). Prevalence of clinically elevated depressive symptoms in college athletes and differences by gender and sport. *British Journal of Sports Medicine*, 50, 167-171.
- Yang, J., Peek-Asa, C., Corlette, J. D., Cheng, G., Foster, D. T., & Albright, J. (2007). Prevalence of and risk factors associated with symptoms of depression in competitive collegiate student athletes. *Clinical Journal of Sport Medicine*, 17(6), 481-487.
- Young, B., Desmarais, S. L., Baldwin, J. A., & Chandler, R. (2016). Sexual coercion

practices among undergraduate male recreational athletes, intercollegiate athletes and non-athletes. *Violence Against Women*.

Young, B. W., & Medic, N. (2011). Examining social influences on the sport commitment of masters swimmers. *Psychology of Sport and Exercise*, 12(2), 168-175.

## APPENDIX A

### Demographic Questions

1. What is your gender?
2. How old are you?
3. What is your race?
4. What college sport(s) do you play?
5. Are you currently in season?
6. Are you injured to the point where you are not playing this season or do not plan to play this season?
7. Are you a starter on your team?
  - a. Yes
  - b. No
8. How many years have you been playing your college sport? (round up to the year)
9. What is the average number of hours per week you spend on your sport (this refers to all aspects of your sport – time spent practicing, training, traveling, watching film, competing, etc).
10. Are you currently on a scholarship to play sports at your school? If so what percent?
11. What is your current relationship status?
  - a. Single (I do not consider myself to be in a current romantic relationship)
  - b. I am currently in a romantic relationship with one person/dating one person. I do not live with that person.
  - c. I am currently in a romantic relationship with one person/dating one person and I live with that person.
  - d. I consider myself to be in a long distance romantic relationship with one person/dating one person.
  - e. I am in romantic relationships with multiple partners
  - f. Engaged
  - g. Married
12. How long have you been in a romantic relationship with your current partner? (e.g., 1 year, 4 months)
13. Roughly how many miles do you live from your current romantic partner? (Round up to the nearest mile).
14. Roughly how many days per week do you see your partner?
15. What is the average number of hours per week you spend with your partner?
16. Does your partner attend the same University as you?
17. Is your partner an athlete?
  - a. No
  - b. Yes, college, varsity, Division I
  - c. Yes, college, varsity, Division II, or III
  - d. Yes, college club
  - e. Yes, previously played high school athletics
18. Do you have children?

- a. Yes, with my current partner
- b. Yes, with another person
- c. No

19. Do you currently have a job or internship?

- a. Yes
- b. No

20. If you have a job or internship how many hours per week do you spend at work?

## APPENDIX B

### Role Saliency Items

Please answer the questions below by indicating how important your sport and current romantic relationship is to you. Click any number from 1 to 7 to indicate various levels of importance.

1 Not at all important	2	3	4 Neutral/mixed	5	6	7 Very Important
------------------------------	---	---	--------------------	---	---	------------------------

1. How important is your sport to you in your life?
2. How important is your current romantic relationship to you in your life?

## APPENDIX C

### Relationship Conflict

Please answer each question below by indicating how strongly you agree or disagree with the idea expressed. Click any number from 1 to 7 to indicate your various levels of agreement or disagreement.

1 Disagree strongly	2	3	4 Neither agree nor disagree	5	6	7 Agree strongly
---------------------------	---	---	---------------------------------------	---	---	------------------------

1. I interrupt my partner when we are arguing
2. I often have a hard time doing things because I am thinking about an ongoing conflict with my partner
3. We have arguments that erupt over minor events
4. It is hard to discuss issues without getting into a heated argument
5. I clam up when we disagree
6. It seems like we can hardly talk about anything important without getting into a fight



## APPENDIX D

### Sport-Relationship Conflict

Below are questions about your current romantic relationship and your college sport. Please respond to these questions by clicking the box that best reflects your overall opinion as it relates to your current relationship and sport.

1= Strongly disagree, 2 = Disagree, 3 = Neither agree or disagree, 4 = Agree, 5 = Strongly agree.

#### Time-based work interference with family

1. I have to miss activities with my partner due to the amount of time I must spend on sport-related responsibilities (e.g., preparation, training, practice, games, team activities, etc.).

#### Time-based family interference with work

2. I have to miss sport activities (e.g., preparation, training, practice, games, team activities, etc.) due to the amount of time I must spend on relationship responsibilities.

#### Strain-based work interference with family

3. I am often so emotionally drained when I get home from my sport-related activities and responsibilities that it prevents me from contributing to my relationship.

#### Strain-based family interference with work

4. Because I am often stressed from relationship responsibilities, I have a hard time concentrating on my sport.

#### Behavior-based work interference with family

5. The behaviors I perform that make me effective in my sport do not help me to be a better partner.

#### Behavior-based family interference with work

6. Behavior that is effective and necessary for me in my relationship would be counterproductive in my sport.

## APPENDIX E

### Sport-Relationship Enrichment

Below are questions about your current romantic relationship and your college sport. Please respond to these questions by clicking the box that best reflects your overall opinion as it relates to your current relationship and sport.

1= Strongly disagree, 2 = Disagree, 3 = Neither agree or disagree, 4 = Agree, 5 = Strongly agree.

*My involvement in my sport...*

Sport to relationship development

1. Helps me to understand different viewpoints and this helps me be a better partner

Sport to relationship affect

2. Makes me feel happy and this helps me be a better partner

Sport to relationship capital

3. Helps me feel personally fulfilled and this helps me be a better partner

*My involvement in my relationship with my partner....*

Relationship to sport development

4. Helps me acquire skills and this helps me be a better athlete

Relationship to sport affect

5. Puts me in a good mood and this helps me be a better athlete

Relationship to sport efficiency

6. Encourages me to use my training time in a focused manner and this helps me be a better athlete

## APPENDIX F

### Vignette: Relationship Conflict Prime

#### **Participant Instructions**

*In every relationship people experience times when they disagree with their partner over something. Please read the below passage and imagine the conflict described between you and your partner as vividly as possible.*

#### **Script**

Your partner is having a birthday party that you cannot attend because you have a sport competition. You and your partner get into a disagreement about missing their birthday. You try to explain the importance of your competition to your partner but they don't take time to listen and understand your thoughts, feelings, or point of view. You become frustrated, and the disagreement escalates until you are both yelling at each other and pissed off. You have to go out of state for your sport competition without resolving this conflict.

Two hours before your competition you see that your partner posted something disrespectful about you on social media. When you call your partner to discuss this they are dismissive, and hang up. You are unable to resolve this conflict before your competition.

#### **Instructions**

*Take 3-5 minutes to really imagine this conflict as vividly as possible. Picture yourself, your partner, where you are, what you and your partner are saying to each other, and how you are feeling. Think about the strain this conflict would put on your relationship and the negative impact it would have on your enjoyment of, and performance in your sport. Write down a few sentences about how you are **feeling right now**.*

## APPENDIX G

### Vignette: Neutral

#### **Participant Instructions**

*Please read the below passage and imagine the scenario as vividly as possible*

#### **Script**

Imagine yourself going to a store and buying products you need. Imagine other people who are also buying products, talking among themselves about daily issues, examining new brands, and comparing different products.

#### **Instructions**

*Take 3 minutes to really imagine this as vividly as possible. Picture where you are, and what you are doing. Write down a few sentences about how you are ***feeling right now***.*

## APPENDIX H

### Personal Relevance of Conflict Prime: Baldwin (1992) article

1 = Not likely at all, 2 = Somewhat likely, 3 = Moderately likely, 4 = Very likely, 5 = Extremely likely.

1. What is the likelihood that the scenario you read at the beginning of the survey would occur in your life?

1 = Not at all, 2 = A little, 3 = Moderately, 4 = Quite a bit, 5 = Extremely

2. How vividly were you able to imagine the scenario you read about? (Carnelley et al 2007)

## APPENDIX I

### Shortened Version of the Profile of Mood States (SV-POMS): Tension-Anxiety and Anger-Hostility subscales

Below is a list of words that describe feelings people have. Please read each one carefully. Then fill in one circle that best describes how you are **feeling right now**.

1 = Not at all, 2 = A little, 3 = Moderately, 4 = Quite a bit, 5 = Extremely

#### Tension-Anxiety

On edge

Uneasy

Restless

Nervous

Anxious

#### Anger-Hostility

Angry

Peeved

Grouchy

Annoyed

Resentful

Bitter

Furious

## APPENDIX J

### Negative Spillover

Below are questions about your current romantic relationship and your college sport. Please respond to these questions by clicking the box that best reflects your opinion as it relates to your current relationship and sport.

1 Not at all	2	3	4 Moderately	5	6	7 Extremely
--------------------	---	---	-----------------	---	---	----------------

1. In your opinion to what degree do relationship concerns interfere with your sport performance?
2. In your opinion to what degree does your sport commitment interfere with your relationship with your partner?
3. In your opinion to what degree do you and your partner have arguments about your sport?

## APPENDIX K

### Athlete Burnout Questionnaire (ABQ)

Please respond below by indicating how often you experience the following statements about your current college sport(s)

1 = almost never, 2 = rarely, 3 = sometimes, 4 = frequently, 5 = almost always

1. I am accomplishing many worthwhile things in sport (RA) Recode
2. I feel so tired from my training that I have trouble finding energy to do other things (E)
3. The effort I spend in sport would be better spent doing other things (D)
4. I feel overly tired from my sport participation (E)
5. I am not achieving much in sport (RA)
6. I don't care as much about my sport performance as I use to (D)
7. I am not performing up to my ability in sport (RA)
8. I feel "wiped out" from sport (E)
9. I'm not into sport like I used to be (D)
10. I feel physically worn out from sport (E)
11. I feel less concerned about being successful in sport than I used to (D)
12. I feel exhausted by the mental and physical demands of sport (E)
13. It seems that no matter what I do, I don't perform as well as I should (RA)
14. I feel successful at sport (RA) Recode
15. I have negative feelings toward sport (D)



## APPENDIX L

### Sport Commitment Model (Enjoyment and Social Support Scales)

Below are several items related to your participation in your college sport(s). Please indicate your experience by choosing the number that corresponds with the below items.

1 = not at all; 2 = a little, 3 = sort of; 4 = pretty much; 5 = very much

#### Enjoyment

1. Do you currently enjoy playing your sport for your college/university?
2. Are you currently happy playing your sport for your college?
3. Do you currently have fun playing your sport for your college/university ?
4. Do you currently like your sport?

#### Social Support

1. My partner says things to make me feel good about playing my sport for your college/university
2. My partner encourages me to play my sport at my college/university
3. My partner says things to keep me from playing my sport at my college/university
4. I feel that I receive support from my partner about my sport

## APPENDIX M

### Shortened Version of the Profile of Mood States (SV-POMS), Depression-Dejection Subscale

#### **Participant Instructions and Items**

Below is a list of words that describe feelings people have. Please read each one carefully. Then fill in one circle that best describes how you are **feeling right now**.

1 = Not at all, 2 = A little, 3 = Moderately, 4 = Quite a bit, 5 = Extremely

#### Depression-Dejection

Unhappy

Sad

Blue

Hopeless

Discouraged

Miserable

Helpless

Worthless

## APPENDIX N

### Respect for Partner Scale

Please indicate the degree to which you agree or disagree with the following statements. When responding to the below statements please think of your current romantic partner.

1	2	3	4	5	6	7
Disagree strongly			Neutral/mixed			Agree strongly

1. My partner shows interest in me, has a positive attitude, is willing to spend time with me
2. My partner is helpful, supportive, present when needed; tries to fulfill my needs
3. My partner is sensitive and considerate to my feelings
4. My partner is thoughtful, courteous
5. My partner fosters mutuality and equality
6. My partner is caring and compassionate
7. My partner calms me, puts me at ease, makes me feel comfortable
8. My partner is not understanding and empathetic

## APPENDIX O

### Rumination Items

1 = Not at all, 2 = A little, 3 = Moderately, 4 = Quite a bit, 5 = Extremely

1. How much are you thinking about the passage you read at the beginning of the survey?
2. What was the passage about? \_\_\_\_\_

## APPENDIX P

### Informed Consent

DU IRB Approval Date: 10/6/2016

Valid for Use Through: 11/1/2016 – 08/01/17

### University of Denver Consent Form for Participation in Research

**Title of Research Study:** College Athletes and Romantic Relationship Conflict: The Moderating Effects of Sport-Relationship Conflict and Enrichment

**Researcher:** Keaton Muzika, LCSW, University of Denver  
**Faculty Sponsor:** Jesse Owen, Ph.D., University of Denver

**Study Site:** Off Campus

#### **Purpose**

You are invited to participate in a research study. The purpose of this research is to obtain information about the impact of romantic relationship conflict on college student-athletes.

#### **Procedures**

If you agree to participate in this research study, you will be asked to respond to questions about your participation in athletics, your mood, your romantic relationship, and to read a brief paragraph. Participation in this study will take you 20-30 minutes.

#### **Voluntary Participation**

Participating in this research study is completely voluntary. Even if you decide to participate now, you may change your mind and stop at any time. You may choose not to answer any survey questions for any reason without penalty or withholding of other benefits to which you are entitled.

#### **Risks or Discomforts**

Because you will be responding to questions about relationship conflict, potential risks and/or discomforts of participation may include mild and brief emotional discomfort.

#### **Benefits**

If you agree to take part in this study, there will be no direct benefit to you. However, information gathered in this study may highlight the potential challenges and benefits of simultaneously participating in athletic and romantic partner roles. Ultimately the data gained in this study may help athletes minimize conflict and maximize the benefits between the two roles.

#### **Incentives to participate**

If you choose to participate in this study you will have the opportunity to enter a raffle to win a \$200 amazon gift card.

### **Confidentiality**

Your responses will be identified by code number only and will be kept separate from information that could identify you. All data will be kept in a password protected document on a password protected computer. This is done to protect the confidentiality of your responses. Only the researcher will have access to your individual data and your individual identity will be kept private when information is presented or published about this study. The research records are held by researchers at an academic institution; therefore, the records may be subject to disclosure if required by law. The research information may be shared with federal agencies or local committees who are responsible for protecting research participants

Some things we cannot keep private and must report to proper authorities. Although no questions in this survey address is, if you disclose information about child abuse or neglect or that you are going to harm yourself or others, we have to report that to the proper authorities as required by law.

Before you begin, please note that the data you provide may be collected and used by Qualtrics as per its privacy agreement. This research is only for U.S. residents over the age of 18 (or 19 in Nebraska). Please be mindful to respond in private and through a secured Internet connection for your privacy. Your confidentiality will be maintained to the degree permitted by the technology used. Specifically, no guarantees can be made regarding the interception of data sent via the Internet by any third parties.

### **Questions**

If you have any questions about this project or your participation, please feel free to contact the faculty sponsor on this project, Jesse Owen, Ph.D at 303-871-2482; jesse.owen@du.edu or the primary investigator, Keaton Muzika, LCSW at 603-491-7462; keaton.zucker@gmail.com.

If you have any questions or concerns about your research participation or rights as a participant, you may contact the DU Human Research Protections Program by emailing [IRBAdmin@du.edu](mailto:IRBAdmin@du.edu) or calling (303) 871-2121 to speak to someone other than the researchers.

Please take all the time you need to read through this document and decide whether you would like to participate in this research study.

If you agree to participate in this research study, please click “yes” below.  
You may print a copy of this form for your records.

- Yes (indicates agreement to participate in the study)
- No (indicates declining to participate in this study)

## APPENDIX Q

### Sample Recruitment Email to Coaches

Subject Line: Request for Student-Athlete Participation in Research Project

My name is Keaton Zucker. I am a counseling psychology PhD student at the University of Denver and I am collecting data for my dissertation that examines the ways in which relationship conflict impacts NCAA DI athletes' sport participation and mood. I am wondering if you would be willing to share my recruitment email and the link to my online survey with the athletes on your team. All responses will be kept confidential. Participants will have the opportunity enter a raffle to win \$200.

Below is an email with the link to the survey that you can forward to your athletes – if you are willing. If you have any questions you may contact me at [keaton.zucker@du.edu](mailto:keaton.zucker@du.edu) or my faculty sponsor, Jesse Owen, Ph.D at [jesse.owen@du.edu](mailto:jesse.owen@du.edu).

I appreciate your willingness to consider passing this information onto your athletes!

Sincerely,

Keaton Muzika, LCSW  
Doctoral Student  
University of Denver | Counseling Psychology  
603-491-7462

## APPENDIX R

### Sample Recruitment Email to Athletes

You are invited to participate in a research study about college athletes and their romantic relationships. If you are currently in a romantic relationship I am asking if you will complete a 20-30 minute online survey about your sport and romantic relationship. Participation in the study is completely voluntary and will not impact your academic or athletic standing. All responses will be kept confidential and your coaches will not have access to your responses. If you voluntarily choose to participate you will have the opportunity to enter a raffle to win a \$200 Amazon gift card.

**To participate in this study please click on the link below.**

**[Click Here for the Athlete Survey](#)**

If you have any questions or concerns you may contact me at [keaton.zucker@du.edu](mailto:keaton.zucker@du.edu) or my faculty sponsor, Jesse Owen, Ph.D at [jesse.owen@du.edu](mailto:jesse.owen@du.edu)

Thank you for considering participating in this study!!!

Sincerely,

Keaton Muzika, LCSW  
Doctoral Student  
University of Denver | Counseling Psychology  
[603-491-7462](tel:603-491-7462)

\*\*\*This study has been approved by the University of Denver Institutional Research Board\*\*\*