SPORTS COACHING WITHIN COLLEGE SPORTS TEAMS: EXAMINE THE ASSOCIATION BETWEEN COACHES’ TRANSFORMATIONAL LEADERSHIP AND REDUCTION IN ATHLETES’ STRESS BEFORE CRUCIAL GAMES

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Student’s Date of Defense: October 1, 2015
SPORTS COACHING WITHIN COLLEGE SPORTS TEAMS: EXAMINE THE ASSOCIATION BETWEEN COACHES’ TRANSFORMATIONAL LEADERSHIP AND REDUCTION IN ATHLETES’ STRESS BEFORE CRUCIAL GAMES

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ABSTRACT

The study sought to investigate the association between coaches’ leadership and athletes’ perceived stress before important games. Participants included 107 male and female college athletes from three universities in the U.S. The results indicated that both transformational and transactional leadership predicted reduction in athletes’ perceived stress before important games. Communication time and practice time with coach had significant positive associations with coaches’ transformational leadership. In addition, athletes’ neuroticism as a personality trait was a significant predictor of athletes’ perceived stress before important games. This study highlighted the salient role of coaches’ transformational and transactional leadership before important games and discussed its theoretical and practical implications.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSTRACT</td>
<td>iv</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>v</td>
</tr>
<tr>
<td>CHAPTER</td>
<td></td>
</tr>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>II. LITERATURE REVIEW</td>
<td>4</td>
</tr>
<tr>
<td>Transformational Leadership Theory</td>
<td>4</td>
</tr>
<tr>
<td>Sports Coaching and Communication</td>
<td>8</td>
</tr>
<tr>
<td>Psychological Influence</td>
<td>9</td>
</tr>
<tr>
<td>Transactional and Laissez-Faire Leadership</td>
<td>11</td>
</tr>
<tr>
<td>Leaderships and Stress</td>
<td>13</td>
</tr>
<tr>
<td>III. METHOD</td>
<td>15</td>
</tr>
<tr>
<td>Participants</td>
<td>15</td>
</tr>
<tr>
<td>Procedure</td>
<td>16</td>
</tr>
<tr>
<td>Instrumentation</td>
<td>16</td>
</tr>
<tr>
<td>IV. RESULTS</td>
<td>19</td>
</tr>
<tr>
<td>V. DISCUSSION</td>
<td>31</td>
</tr>
<tr>
<td>VI. LIMITATIONS AND FUTURE RECOMMENDATIONS</td>
<td>38</td>
</tr>
<tr>
<td>VII. BIBLIOGRAPHY</td>
<td>41</td>
</tr>
<tr>
<td>VIII. APPENDICES</td>
<td>51</td>
</tr>
<tr>
<td>Survey</td>
<td>51</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td>Reliability Analysis</td>
<td>19</td>
</tr>
<tr>
<td>II.</td>
<td>Pearson Correlations of Study Variables</td>
<td>20</td>
</tr>
<tr>
<td>III.</td>
<td>Summary of Regression Models Predicting Perceived Stress I</td>
<td>26</td>
</tr>
<tr>
<td>IV.</td>
<td>Summary of Regression Models Predicting Perceived Stress II</td>
<td>27</td>
</tr>
</tbody>
</table>
CHAPTER I
INTRODUCTION

Team capability and physical condition are usually considered as fundamental elements of sports team success in terms of winning games. Sometimes, however, actual game results come as a surprise from those anticipated, i.e., a higher-ranking sports team might lose to a lower ranking team. Another related situation might be that two similarly ranked teams play but one consistently loses to the other. For example, during the FIFA World Cup in 2014, the Spanish national soccer team was the defending champion; they had talented players considered to be the best in every position, so they were expected to be the winning team. Spain was, however, surprisingly eliminated at the initial stage of the group games. In another case regarding similarly ranked teams, consider the “curse of the Hawks” in the National Basketball Association (NBA). In the years between 1993 and 2010, for seventeen straight years, the Hawks lost all their games played in Salt Lake City.

This type of phenomenon reoccurs widely throughout the sports world. What causes such situations to occur? To understand, we must realize that capability and good physical condition are not the only reasons why sports team win or lose. Psychology,
motivation, and stimulation through communication also play a major role in winning or losing. Coaches also play an important role through their interactions with team athletes because such interactions may significantly influence team confidence and psychology. It is therefore extremely important to examine the interactions of sports coaches with team athletes.

Scholars of psychology state that the pressure from competitive matches or opponents not only distracts but can also lead to “self-focus” that may negatively impact an athlete’s performance (Goldman & Rao, 2012). As the leader of the sports team, a coach can be identified as having a pivotal role in achieving positive team psychology and confidence-building. By providing effective leadership and communication, it is argued that a coach can improve the psychological health and well-being of his or her athletes (Hackman & Wageman, 2005). A coach’s leadership can help a team perform better, even though the team may be in an otherwise disadvantaged position.

Interactions between coach and athletes to establish coaching strategies are meaningful and significant for releasing pressure, improving performance, and continuing a team’s winning streak. For example, in the NBA, the Miami Heat was considered by most to be a better overall team than the San Antonio Spurs. However, in the 2014 NBA finals, the Spurs won the trophy most likely because the Spurs coach was rated to be significantly more capable than the Heat’s coach. This demonstrated how important the leadership of the coach and interactions with team players are in achieving better performance and more wins.

Over the past three decades, scholars in various disciplines related to social sciences and psychology have extensively explored transformational leadership. In organizational
studies, transformational leadership behaviors have been shown to be significantly associated with improvement in employee psychological conditions and performance (Bass, 1985; Downton, 1973; Oreg & Berson 2011; Piccolo & Colquitt, 2006; Rowold, 2014). Transformational leadership theory can be conceptualized as a set of communicative practices enacted by coaches in producing idealized influence, generating inspirational motivation, creating intellectual stimulation, and giving individualized consideration (Avolio, 1999).

Sports’ coaching has been addressed in different fields of research (e.g., Ames, 1992; Jowett & Timson-Katchis, 2005). Previous research has shown that context matters in understanding leadership behaviors, particularly in sports coaching (Sagar & Jowett, 2010). One of the contexts that deserve further investigation with regard to leadership is that of a coach preparing a team for an important game such as a qualifier or a final. The purpose of this paper is to investigate how transformational leadership behaviors by coaches are associated with athletes’ perception of stress in preparation for important games. The results will help identify best practices of leadership behavior; assist athletes to overcome stress and, thereby, perform better. This study may also make a theoretical contribution by extending transformational leadership theory into understanding sports coaching and athlete stress.
CHAPTER II
LITERATURE REVIEW

TRANSFORMATIONAL LEADERSHIP THEORY

Various leadership styles and theories have been formulated and studied by scholars; these include trait theories, behavioral theories, contingency theories, and power and influence theories. Transformational leadership is a leadership style in which leaders inspire and motivate their followers through idealized influence, inspirational motivation, intellectual stimulation and individual consideration; as a result the motivation and morality of both leader and followers are increased (Bryman, 1992; Bass & Avolio, 1994; Lowe, Kroeck & Sivasubramaniam, 1996; Avolio, 1999; Beyer, 1999; Avolio & Yammarino, 2013; Bass, 2008; Bell & Fisher, 2012).

Hersey and Blanchard (1969) proposed situational leadership theory, explaining how a leader should set high but attainable goals and promote willingness to take responsibility for the task in addition to providing education and/or experience. House (1977) then proposed how to enhance challenging goals through relationships between a leader’s charisma and a follower’s performance. Transformational leadership requires a higher
standard than traditional leadership, and a leader’s personal attribution, value, and orientation may affect how choices are made that ultimately influence followers’ decisions. While previous theories emphasized rational processes, transformational theory also considered emotions and values of followers.

Transformational leadership as a field was first proposed by Downton (1973). He pointed out the significant role of charisma in the relational process between leaders and followers. Bass (1985) indicated that, in addition to satisfying followers’ personal needs, transformational leadership is also involved in the charismatic personality of a leader and the effectiveness of leadership that enhances followers’ commitment to long term goals, motivation, and loyalty to their group or company through the personal charismatic appeal of leaders. Bass (1985) proposed a transformational leadership approach, one similar to Burn’s research in affirming that followers’ satisfaction is more important than leaders’ satisfaction, and that leadership types ranging from transformational to transactional to laissez-faire represent a single continuum. Bass considers charisma to be the most important aspect of transformational leadership in addition to the two other related components of “individualized consideration” and “intellectual stimulation”. Bass’s transformational leadership model was based both on Burns’ book about transformational leadership and House’s research results related to charisma (Yammarino, 1993).

As Yammarino (1993) pointed out, however, Bass’s work also had many improvements and extensions. Previous research has mainly focused on the needs of leaders and asserted that only if results were positive would leaders be considered to be transformational.
Throughout the transformational evolution, interaction between leaders and followers may move towards higher levels of motivation and morality (Shamir, House & Arthur, 1993). From a leader’s perspective, leaders may strengthen their personal reputation in an organization and earn respect and trust from followers, ultimately helping them to more accurately implement their blueprints or strategies. From a followers’ perspective, followers aim to seek certain personal goals in their organization; these goals could be reward, money, personal values, position etc. Through transformational change, followers can reach a level exceeding their expectations, helping them enhance their sense of belonging to the organization, and to be more willing to work and be involved in issues related to their organizations (Burns, 1978).

During the past few decades, transformational leadership has been further developed by scholars. The present study applies the transformational leadership theory as presented in Avolio (1999). He conceptualized transformational leadership in four dimensions: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Transformational leaders create a positive environment that can support team success by causing team members to feel reduced stress, enabling them to give their best performance.

Idealized influence means that leaders make themselves serve as examples to others, to impact followers through personal charisma and high-level moral traits thereby earning respect and recognition from followers who would like to support a leader’s plan to move the organization forward. In sports teams, coaches may influence athletes through being role models. Athletes form strong identification with their coach.
Inspirational motivation refers to leaders expressing high expectations to followers and using team spirit to stimulate follower’s motivation. Inspirational motivation occurs when leaders, in this case, sports coaches, inspire and motivate athletes on the team and create optimism about a future goal in such a way that the team is encouraged and motivated to believe in themselves and to do their best to achieve the goal.

Intellectual stimulation refers to leaders challenging followers’ intellect and engaging followers in innovation and problem-solving. Intellectual stimulation occurs when a coach challenges the team when they may have negative assumptions about the goal. The leader/coach also accepts and works with ideas from team members on how to achieve the goals even if this results in taking a risk. Individual team members are encouraged to discuss values, ideas, and problem solutions. This kind of stimulation makes team members think and thereby achieve more.

Individualized consideration refers to leaders treating followers as individuals, and cultivating their talents based on the followers’ specific personalities (Avolio, 1999) Individualized consideration occurs when a leader, such as a sports coach, addresses individual athletes/team members’ concerns and accomplishments. Individualized attention and care result in athletes feeling respected can inspire them to do their best.

Over the past few years, transformational leadership has been widely researched and tested by scholars and applied to many application areas and different cultural backgrounds.

Slatten and Mehmetoglu (2015) examined the relationship between transformational leadership and hospitality frontline employees’ perceived creativity and innovative
behavior. They found a strong association between transformational leadership and perceived creativity associated with employee innovative behavior.

Bacha and Walker (2013) studied the association between transformational leadership and followers’ perceptions of fairness. Three types of fairness found in French companies were examined: “distributive fairness”, “procedural fairness”, and “interactional fairness”. Results of that study showed that procedural and interactional fairness were significantly associated with transformational leadership.

A three-stage transformational leadership theory research study was conducted in different organizations to test how national culture might influence transformational leadership. The results showed significantly support of transformational leadership theory, i.e., that a leader can greatly influence his or her followers, and this was true even in totally different cultural backgrounds (Singh & Krishnan, 2007). In the following year, Singh and Krishnan worked on yet another application in the area of transformational leadership, exploring the relationship between self-sacrifice and transformational leadership with the mediation of altruism. On studying how those three aspects influence individuals’ perceptions and performance in an organization, Singh and Krishnan (2008) found transformational leadership to be positively associated with followers collective identity and perceived unit performance.

**SPORTS COACHING AND COMMUNICATION**

Interpersonal communication between coaches and athletes has been widely studied by both communication and psychology scholars (e.g., Smith & Smoll, 1990; Turman, 2003a, 2003b, 2005, 2006; Turman & Schrodt, 2004). A good coach can help lead a
team toward success and meeting their stated goals by helping team members exert their
talent to their maximum degree (Turman, 2003).

Coach-athlete relationships have been classified into three categories: psychology for
physical performance, psychology for health and well-being, and professional
development and training (Poczwardowski, Barott, and Henschen, 2002). The quality of
interaction has been a focus because it could affect a sports team’s performance,
especially in particular situations. For example, a study by Sagar and Jowett (2010)
examined two interpersonal situations between coach and athlete: when a team loses
advantage or a competition, and when individual athletes make mistakes during training.
Their results demonstrated that the quality of interpersonal communication could greatly
influence an athlete’s performance and skill improvement.

The most common attribute of coaches with respect to professional development is to
help athletes improve their physical skills, but with the professionalization of sports,
more and more scholars have begun to pay attention to coaches’ improvement in use of
psychological techniques; scholars have explored techniques such as self-talk, imagery,
and performance (Bloom, Durand-Bush & Salmela, 1997).

**PSYCHOLOGICAL INFLUENCE**

Despite numerous research studies exploring the nature of sports coaching with
respect to different theories and perspectives, development of athletes’ psychological
performance is still considered to be the most important function of sports coaching.
Turman and Schrodt (2004) identified sports coaching as an interpersonal communication
activity between coach and athletes.
A coach may give suggestions to athletes on how to perform to their utmost abilities, and various strategies affecting the operation of the sports team and influencing the performance of their athletes during competition may be used (Poczwardowski, Barott, and Hensch, 2002). A team’s success is dependent on how good a transformational leader a coach may be and how well a coach can positively influence a team through communication with its members (Giges, Petitpas & Vernacch, 2004).

Effective sports coaching is related to many levels of success. Coaches may exert their talent for communication in the competition process by reducing distraction, giving each individual consideration and recognition, and improving the team’s cooperation and cohesion (Gould, Guinan & Greenleaf, 2002).

Coussens, Freeman & Rees. (2013) discovered that soccer players showed significant improvement during competition when they perceived a high level of support from their coach, and that some external regulations and support could also have an influence on the team’s performance. Some specific coaching skills, like utilizing coaching facilities to improve performance, finding effective ways to deal with internal conflict, and using psychological communication such as motivating talks, also influence player performance. In addition, the authors also indicated that coaches could benefit from psychological training in improving their personal skills to manage athlete stress before a vital match. Coach-athlete communication can lead to valuable team chemistry. This not only helps maintain the quality of their relationships but also enhances physical performance, ultimately leading to success (Keyton, Beck, Messersmith & Bisel, 2010).

So far, we have discussed player psychology, but the psychology of the coach also has an influence on effectiveness as a transformational leader. Feltz, Chase, Moritz, &
Sullivan (1999) found that coaching efficacy was correlated with game strategy, motivation, technique and character building. Efficacy was predicted by a combination of a coach’s past experience, results/success, perceived player talent, and social support.

Some scholars have begun focusing on the importance of the psychological need for health and well-being (Cote, Bruner, Erickson, Strachan, & Fraser-Thomas, 2010). Important research based on achievement goal theory (Duda, 2007) and self-determination theory (Deci & Ryan, 2000) has focused on how to create and improve motivational learning environments for athletes. Davis, Davis & Burns (2013) found that the quality of a coach-athlete relationship is positively related to an athlete’s psychological well-being. When an athlete was injured, the coach played an important role in terms of empathy and effective communication that had an influence on the athlete’s motivation to rehabilitate, ultimately leading to faster recovery and rejoining the team.

Research has already been done on a variety of these topics so this paper will specifically deal with a particular situation, one in which an athlete experiences anxiety and pressure. We will examine how the physical, communication-oriented, and psychological aspects of good transformational leadership by sports coaches can help athletes overcome anxiety/pressure and perform at a higher level.

**TRANSACTIONAL AND LAISSEZ-FAIRE LEADERSHIP**

In addition to transformational leadership, two other types of leadership were widely studied: transactional leadership (Bass, 1985; Bass, 2008) and laissez-fair leadership (Foster, 2002; Johnson & Hackman, 2003; Eagly, Johannesen-Schmidt & Van Engen,
Transactional leadership is a kind of managerial leadership in which leaders inspire their followers through economic and emotional exchanges by rewarding desired outcomes. Transactional leaders focus on followers’ mistakes or errors by punishing followers to prevent mistakes. Laissez-Fair Leadership is a self-rule type of leadership in which leaders avoid taking positions or making decisions, and give their followers freedom to do their jobs and only provide guidance and support when requested (Bass, 1985).

Transactional Leadership is a widely used managerial approach in which leaders provide followers’ satisfaction of need through rewards or punishments in exchange for followers’ work performance; it mainly focuses on the management and team performance. There are two fundamental elements in this system: Contingent Reward and Management-by-exception. Contingent Reward means leaders commonly provide rewards for followers to stimulate work motivation or in recognition for favorable job performance; the type of reward could be either psychological or materialistic. Management-by-Exception occurs when followers fail to meet certain required performance goals. Within management by exception, there are passive route and active route. Passive leaders won’t solve problems until the problems occur; on the other hand, active leaders are more likely to keep their eye on followers’ performance and to make followers’ work corrections throughout the whole process. Unlike Transformational leadership, where leaders tend to aim for positive achievement of goals, transactional leaders do not aim higher, but seek only to maintain the current status quo (Bass & Bernard, 2008)
Laissez-faire leadership has attracted a growing amount of attention in recent years; it represents an approach in which leaders give team members complete freedom and space to make decisions. This kind of leadership also may show high effectiveness and high performance when team members have capability to handle their work (Lewin, Lippitt, & White, 1939).

**LEADERSHIP AND STRESS**

Scholars argue that pressure and perceived competence can both distract and motivate athletes, and these reactions may have an impact on the team’s or the athlete’s performance. A comparison between a basketball team’s home game and road games shows that presence of a supportive audience affects the impact of pressure. Goldman and Rao (2012) found that at home games good shooters perform significantly worse than normal than poor shooters due to the pressure. Home teams, however, demonstrate significant improvement in offensive rebounding under such pressure. Additionally, the visiting team often didn’t show a significant difference under pressure, indicating that distraction plays a limited role. This suggests that sports coaches should utilize different strategies when faced with different athletes and situations.

Thornton (2014) conducted a study about an athlete’s perceived pressure when competing in an important upcoming match, such as a qualifier, a final match, or an international competition. This kind of pressure may lead to either positive or negative results depending on the athlete’s “internal process” changes. Considering a coach’s psychological and physical instruction functions, we could assume that a coach’s
leadership role can significantly influence an athlete’s performance in a pressure environment created by an upcoming competition.

This study should therefore provide practical suggestions for sports coaches in specific stress-related (athlete’s stress) circumstances. This research may also make a contribution to a new application in the area of transformational leadership theory.

We will specifically study a situation in which athletes experience pressure before important games, and how transformational leadership can help reduce stress. Our hypotheses are as follows:

**H1**: The level of a coach’s transformational leadership is negatively related to an athlete’s psychological stress before important games when neuroticism, perceived social support, demographics and communication/practice time with the coach are controlled.

**H2**: The level of a coach’s transactional leadership is negatively related to the athlete’s psychological stress before important games when neuroticism, perceived social support, demographics and communication/practice time with the coach are controlled.

**H3**: The level of a coach’s laissez-faire leadership is positively related to the athlete’s psychological stress before important games when neuroticism, perceived social support, demographics and communication/practice time with the coach are controlled.

**H4**: Before important games, a coach’s transformational leadership has a greater effect on reducing athletes’ psychological stress than the use of transactional or laissez-faire leadership.
CHAPTER III

METHODS

PARTICIPANTS

A sample of 107 college athletes were recruited from three Midwestern universities in the U.S. Approximately 67.35% of the participants were male (n = 72) and 31.63% were female (n = 33), 2 missing data. The mean age was 25.5 years (SD = 8.19, range = 19 - 33). The majority of participants were Asian (47.96%, n = 47), followed by Caucasian White students (24.49%, n = 24); there were 16 (16.33%) Black or African American participants, 11 (1.1%) Hispanic or Latino participants, and 9 (8.4%) participants self-identified as “other” (e.g., middle eastern, Black and White Mixed). The results showed that 65.56% (n = 59) of the participants played basketball, 17.78% (n = 19) played soccer, and 15.56% (n = 14) played football, while 10% (n = 9) were baseball players, and 8.89% (n = 10) were swim team participants. They spent an average of 11.53 hours each week strategizing or discussing games, team, etc., and 9.69 hours of practice each week with their coach.
PROCEDURE

Institutional review board (IRB) approval was received before the survey was distributed. All participants in the research study were required to complete an informed consent form before completing the survey. Participants were asked to report information with respect to their coach’s leadership before any important game they experienced. The information was collected through an online questionnaire using Survey Monkey. To distribute the online survey social media (Facebook and Twitter, Email) were used. Researchers used Facebook and other social media to provide links to their social networks. Participants were required to be college students involved in at least one university-sponsored sports program.

INSTRUMENTATION

Prior to initiating the survey, a pilot study was conducted to test the survey with four athletes who completed it and provided feedback on the appropriateness and clarity of the questions. After receiving such feedback and making recommended minor changes to the phrasing of the questions, the survey was finalized.

A three-section survey was developed for the purposes of the study (see Appendix). The first section requested demographic information (e.g., age, gender, race, what type of sport, hours spent weekly with coach). The second and third sections included measures of transformation/transactional/ laissez-faire leadership, neuroticism, social support, team satisfaction, and perceived stress.

The Multifactor Leadership Questionnaire (5x-Short) (Copyright © 1995 Bruce Avolio and Bernard Bass) was adapted to measure transformational, transactional, and laissez-faire leadership. A 5-point scale (0 = not at all, 1 = Once in a while, 2 = Sometimes, 3 =
Fairly often, and 4 = Frequently, if not always) was used. The transformational leadership scale contains 20 items examining the four dimensions of transformational leadership: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration, for example, “My head Coach talked about their most important values and beliefs.” The transactional leadership scale contains 12 items, for example, “My head coach provides me with assistance in exchange for my efforts.” The laissez-faire leadership scale has 4 items, such as, “My head coach avoided getting involved when important issues arise.”

The demographic questions included age, biological sex, and ethnicity. Biological sex and racial information were dummy-coded into Dummy-sex (Male = 1, all others = 0) and Dummy-Asia (4 = 1, all others = 0).

There were two questions about the number of hours they communicate and practiced with coach each week. It included items such as: “# of hours per weeks spent with the coach strategizing or discussing the game, team etc” and “# of hours / week practicing with the team and coach.”

The perceived social support scale (Rees & Hardy, 2002) included 5 items. Perceived social support measures the extent to which athletes felt supported by his or her team. This scale was customized from the multidimensional scale of perceived social support. Each item was scored 1-4 (Definitely false = 1, Definitely true = 4). (E.g., “My team helped me with issues in my personal life.”)

The perceived team satisfaction scale (Taylor & Bowers, 1974) contains 5 items; the questions are used to measure the feelings and attitudes of athletes towards their coach and teammates. A sample item states, “How satisfied are you with your chance for
getting ahead in this team in the future?" A 5-point Likert type scale (1 = Very Dissatisfied, 5 = Very Satisfied) was used.

The perceived stress scale (PSS) (Cohen, Kamarck & Mermelstein, 1988) contains 10 items; it was widely used by psychologists as an instrument to measure the perception of stress. A 5-point Likert type scale (0 = Never, to 4 = Very often) was used. A sample item reads, “In the last month, how often have you been upset because of something that happened unexpectedly during the interaction with coach?” Four positively stated items were reverse-coded.

The neuroticism scale was adopted from the Big Five Inventory (BFI) scale (John & Srivastava, 1999) with 8 items, for example, “I see myself as someone who is depressed, blue.” A 5-point Likert type scale (1 = Disagree strongly, 5 = Agree Strongly) was used to measure this scale. Three items were reverse-coded.
CHAPTER IV

RESULTS

Prior to the regression analyses, a reliability analysis was performed (See Table 1). Responses were deemed reliable for the college athletes who participated in the survey: Transformational leadership scale \((a = .88)\), Transactional leadership scale \((a = .82)\), Laissez Faire Leadership scale \((a = .71)\), Social Support Scale \((a = .77)\), Team Satisfaction Scale \((a = .89)\), Neuroticism Scale \((a = .77)\) and Perceived Stress Scale \((a = .86)\).

Table 1: Reliability analysis

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<td>Transactional Leadership</td>
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<td>Laissez Faire Leadership</td>
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<td>Team Satisfaction</td>
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<td>Neuroticism</td>
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<td>.77</td>
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<td>Perceived Stress</td>
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Table 2: Pearson Correlations of study variables

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<th>Dummy Male</th>
<th>Age</th>
<th>Neuroticism</th>
<th>CWC</th>
<th>PWC</th>
<th>Social Support</th>
<th>Team Satisfaction</th>
<th>Laissez Faire</th>
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<td>PWC</td>
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<td>.076</td>
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<td>.687***</td>
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<td>-.073</td>
<td>.059</td>
<td>-.029</td>
<td>-.002</td>
<td>.180*</td>
<td>.163</td>
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<td>Team Satisfaction</td>
<td>-.015</td>
<td>-.131</td>
<td>.090</td>
<td>.021</td>
<td>.152</td>
<td>.050</td>
<td>.041</td>
<td>.557***</td>
<td></td>
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<td>Laissez Faire</td>
<td>-.031</td>
<td>-.228*</td>
<td>.044</td>
<td>-.051</td>
<td>.107</td>
<td>-.318**</td>
<td>-.329***</td>
<td>-.050</td>
<td>.072</td>
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<tr>
<td>Transactional</td>
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<td>.044</td>
<td>-.157</td>
<td>.093</td>
<td>-.333***</td>
<td>.067</td>
<td>.131</td>
<td>.079</td>
<td>.058</td>
<td>.036</td>
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<tr>
<td>Transformational</td>
<td>-.365***</td>
<td>-.046</td>
<td>-.049</td>
<td>-.056</td>
<td>-.285**</td>
<td>.362***</td>
<td>.262**</td>
<td>.284**</td>
<td>.122</td>
<td>-.293**</td>
<td>.247**</td>
</tr>
</tbody>
</table>

(Notes. $p < .05^*$, $p < .01^{**}$, $p < .001^{***}$)

Notes. CWC: Communication with coach each week; PWC: Practice with coach each week.
The relationships between prediction variables and outcome variables were determined in two parts. First, the Pearson correlation was conducted (See Table 2); Transformational leadership ($r = -0.37$) and transactional leadership ($r = -0.43$) showed a significantly negative relationship with perceived stress. Also, neuroticism ($r = .37$) and dummy-male ($r = .22$) indicated significant correlation with perceived stress. In addition to the correlations with outcome variables, prediction variables also revealed some significant correlations: Transformational leadership has significant correlation with laissez faire leadership ($r = -0.29$), neuroticism ($r = -.29$), social support ($r = 0.28$), hours of communication with coach ($r = 0.36$), and hours practice with coach ($r = 0.26$); Transactional leadership was significantly correlated with neuroticism ($r = -.33$); Laissez-faire leadership indicated a significantly negative relationship with dummy-Asia ($r = 0.23$), communication with coach each week ($r = 0.32$) and practice with coach each week ($r = 0.33$); Social support had a significantly positive correlation with communication with coach each week ($r = 0.18$); team satisfaction showed significantly positive relationship with social support ($r = 0.56$); Additionally, hours of communication with coach had significantly positive correlation with hours of practice with coach ($r = 0.69$).

Hierarchical regression analyses were then conducted. This study used a hierarchical multiple regression to identify significance and beta relationships between measures; more specifically, hierarchical multiple regression could help identify overall model utility and impacts of individual predictors (See Table 3). The predictor variables were entered in the following sequence: Demographics, neuroticism, time, perceptions (social
support and team satisfaction), laissez-faire leadership, transactional leadership and transformational leadership. Thus, a seven-block hierarchical multiple regression analysis was conducted.

Multicollinearity tests using condition index and regression coefficient variance-decomposition matrix, tolerances and VIFs indicated that the analysis has no multicollinearity problem (all tolerances ≥ .47, VIFs ≤ 2.13).

The analysis result indicated that seven predictors explained a total of 37% of the variance of Perceived Stress ($F(11, 90) = 4.76, p < .001$), with an adjusted $R^2$ of .29, a significant overall model.

The first block, Demographics, included Dummy-Male, Dummy-Asia and age: the first two variables stand for biological sex and race, and were dummy-coded into Dummy-Male ($\text{Male} = 1$, All others = 0) and Dummy-Asia ($\text{4} = 1$, All others = 0), separately. Block 1, Demographics, explained 6% of the variance of Perceived Stress ($F(3, 98) = 2.12, R^2 \text{ Change} = .06$), which was not statistically significant. None of the three individual predictors in Block 1 was a significant unique predictor of perceived stress, as indicated by non-significant beta coefficients.

The second block, neuroticism, indicated an $R^2$ change of 0.12 meaning that this block accounted for an additional 12% of the variance of perceived stress ($F(1, 97) = 14.24$), which was significant at $p < .001$. The single variable in Block 2 was also statistically significant, with final beta = .20 and $p < .05$, indicating a positive unique relationship between neuroticism and perceived stress (i.e., greater neuroticism predicted greater perceived stress, when controlling for all other variables in the regression).
The third block, time, included: Hours CWC (Communication with coach each week) and Hours PWC (Practice with coach each week). Time accounted for an additional 0.8% of the variance of perceived stress (F (2, 95) = 0.46), which was not significant. Neither of the two individual predictors in Block 3 was a significant unique predictor of perceived stress, as indicated by non-significant beta coefficients.

The fourth block, perceptions, included: social support and team satisfaction. Perceptions accounted for an additional 2% of the variance of perceived stress (F (2, 93) = 1.19), which was not significant. Neither of the two individual predictors in Block 4 was a significant unique predictor of perceived stress, as indicated by non-significant beta coefficients.

The fifth block, laissez faire leadership, indicated an $R^2$ change of 0.005 meaning that this block accounted for an additional 0.5% of the variance of perceived stress (F (1, 92) = .55), which was not significant. The single variable in Block 5 was not a significant unique predictor of perceived stress, as indicated by the non-significant beta coefficient.

The sixth block, transactional leadership, indicated an $R^2$ change of 0.10 meaning that this block accounted for an additional 10% of the variance of perceived stress (F (1, 91) =13.93), which was significant at $p < .001$. The single variable in Block 6 was also statistically significant, with final beta = -.31 and $p < .001$, indicating a negative unique relationship between transactional leadership and perceived stress (i.e., greater transactional leadership predicted lower perceived stress, when controlling for all other variables in the regression).

The seventh block, transformational leadership, indicated an $R^2$ change of 0.05 meaning that this block accounted for an additional 5% of the variance of perceived stress
(F (1, 90) =7.02), which was significant at \( p < .05 \). The single variable in Block 7 was also statistically significant, with final beta = -.27 and \( p < .05 \), indicating a negative unique relationship between transformational leadership and perceived stress (i.e., greater transformational leadership predicted lower perceived stress, when controlling for all other variables in the regression).

A second hierarchical regression was conducted, identical to the first except that the last two blocks (Transactional leadership and transformational leadership) were switched. The results of this second regression are displayed in Table 4.

The results for the first five blocks were of course identical to the results for the first regression.

The sixth block, transformational leadership, indicated an \( R^2 \) change of 0.08 meaning that this block accounted for an additional 8% of the variance of perceived stress (F (1, 91) =9.82), which was significant at \( p < .01 \). The single variable in Block 6 was also statistically significant, with final beta = -.27 and \( p < .05 \), indicating a negative unique relationship between transformational leadership and Perceived Stress (i.e., greater transformational leadership predicted lower perceived stress, when controlling for all other variables in the regression).

The seventh block, transactional leadership, indicated an \( R^2 \) change of 0.08 meaning that this block accounted for an additional 8% of the variance of perceived stress (F (1, 90) =10.98), which was significant at \( p < .01 \). The single variable in Block 7 was also statistically significant, with final beta = -.31 and \( p < .01 \), indicating a negative unique relationship between transformational leadership and Perceived Stress (i.e., greater
transactional leadership predicted lower perceived stress, when controlling for all other variables in the regression).
Table 3: Summary of Regression Models Predicting Perceived Stress I  
(Transformational Leadership last entered)

<table>
<thead>
<tr>
<th>Models</th>
<th>$\beta$</th>
<th>Final $\beta$</th>
<th>$T$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Demographic: $F (3, 98) = 2.12$, $R^2$ Change = .06</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dummy-Asia</td>
<td>-.05</td>
<td>.03</td>
<td>.34</td>
</tr>
<tr>
<td>Dummy-Male</td>
<td>.22*</td>
<td>.14</td>
<td>1.63</td>
</tr>
<tr>
<td>Age</td>
<td>.09</td>
<td>.09</td>
<td>1.08</td>
</tr>
<tr>
<td>2. Neuroticism: $F (1, 97) = 14.24$, $R^2$ Change = .12***</td>
<td>.369***</td>
<td>.20</td>
<td>2.11*</td>
</tr>
<tr>
<td>3. Time: $F (2, 95) = 0.46$, $R^2$ Change = .008</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CWC</td>
<td>-.08</td>
<td>-.08</td>
<td>-.68</td>
</tr>
<tr>
<td>PWC</td>
<td>-.03</td>
<td>.09</td>
<td>.73</td>
</tr>
<tr>
<td>4. Perceptions $F (2, 93) = 1.19$, $R^2$ Change = .02</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Support</td>
<td>.05</td>
<td>.21</td>
<td>1.97</td>
</tr>
<tr>
<td>Team Satisfaction</td>
<td>-.02</td>
<td>-.11</td>
<td>-1.09</td>
</tr>
<tr>
<td>5. Laissez Faire Leadership: $F (1, 92) = .55$, $R^2$ Change = .005</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-.03</td>
<td>-.10</td>
<td>-.99</td>
</tr>
<tr>
<td>6. Transactional Leadership: $F (1, 91) = 13.93$, $R^2$ Change = .10***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-.43***</td>
<td>-.31</td>
<td>-3.31**</td>
</tr>
<tr>
<td>7. Transformational Leadership: $F (1, 90) = 7.02$, $R^2$ Change = .049*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-.37***</td>
<td>-.27</td>
<td>-2.65*</td>
</tr>
</tbody>
</table>

Total equation: $R^2 = .37$ Adjusted $R^2 = .29$

$F (11, 90) = 4.76$, $p < .001$

Notes: $p < .05^*$, $p < .01^{**}$, $p < .001^{***}$

Notes. CWC: Communication with coach each week; PWC: Practice with coach each week
Table 4: Summary of Regression Models Predicting Perceived Stress II

*(Transactional Leadership last entered)*

<table>
<thead>
<tr>
<th>Models</th>
<th>( \xi )</th>
<th>Final ( \beta )</th>
<th>( T )</th>
</tr>
</thead>
</table>
| **1. Demographic:** \( F(3, 98) = 2.12, \)  
\( R^2 \text{ Change} = .06 \)  
 Dummy-Asia  
 Dummy-Male  
 Age | -.05  
 .22*  
 .09 | .03  
 .14  
 .09 | .34  
 1.63  
 1.08 |
| **2. Neuroticism:** \( F(1, 97) = 14.24, \)  
\( R^2 \text{ Change} = .12^{***} \) | .369*** | .20 | 2.11* |
| **3. Time:** \( F(2, 95) = 0.46, R^2 \text{ Change} = .008 \)  
 CWC  
 PWC | -.08  
 -.03 | -.08  
 .09 | -.68  
 .73 |
| **4. Perceptions** \( F(2, 93) = 1.19, \)  
\( R^2 \text{ Change} = .02 \)  
 Social Support  
 Team Satisfaction | .05  
 -.02 | .21  
 -.11 | 1.97  
 -1.09 |
| **5. Laissez Faire Leadership:** \( F(1, 92) = .55, \)  
\( R^2 \text{ Change} = .005 \) | -.03 | -.10 | -.99 |
| **6. Transformational Leadership:** \( F(1, 91) = 9.82, \)  
\( R^2 \text{ Change} = .08^{**} \) | -.37*** | -.27 | -2.65* |
| **7. Transactional Leadership:** \( F(1, 90) = 10.98, \)  
\( R^2 \text{ Change} = .08^{**} \) | -.43*** | -.31 | -3.31** |

*Total equation: \( R^2 = .37 \) Adjusted \( R^2 = .29 \)  
\( F(11, 90) = 4.76, p < .001 \)*

**Notes:**  
p < .05*,  
p < .01**,  
p < .001***  
CWC: Communication with coach each week; PWC: Practice with coach each week
Hypothesis 1 predicted that the level of a coach’s transformational leadership is negatively related to the athlete’s psychological stress before important games, when neuroticism, perceived social support, demographics, and communication/practice time with coach are controlled. This hypothesis was supported with the significant contribution of transformational leadership in the regression model shown in Table 4 (i.e., 8% of the variance of perceived stress explained). The linear combination of idealized influence attributes, idealized influence behavior, inspirational motivation, intellectual stimulation and individualized consideration accounted for approximately 8% of the variance in perceived stress.

Besides transformational leadership, another two types of leadership were also tested: Transactional leadership and laissez faire leadership. The present study predicts that the level of a coach’s transactional leadership is negatively related to the athlete’s psychological stress before important games, when neuroticism, perceived social support, demographics, and communication/practice time with coach are controlled. This hypothesis was supported with perceived stress being significantly predicted as shown in Table 3. The linear combination of contingent reward, management-passive and management-active accounted for approximately 10% of the variance in perceived stress.

Hypothesis 3 predicted that the level of a coach’s laissez-faire leadership is positively related to the athlete’s psychological stress before important games, when neuroticism, perceived social support, demographics, and communication/practice time with coach were controlled. This hypothesis was not supported, with laissez faire leadership being not significant ($R^2$ change= 0.005, $F (1, 92) = 0.55$). Laissez faire leadership accounted only for approximately 0.5% of the variance in perceived stress.
Hypothesis 4 predicted that a coach’s transformational leadership has a greater effect on reducing athletes’ psychological stress than the use of transactional or laissez-faire leadership. This study failed to indicate that a coach’s transformational leadership has a greater effect on reducing athletes’ psychological stress compared to transactional or laissez-faire leadership. Both transformational leadership and transactional leadership showed significant negative simple correlational relationships with athletes’ perceived stress before important games, but transactional leadership ($r = -.43, p < .001$) has a stronger correlation with perceived stress, compared to transformational leadership ($r = -.37, p < .001$). In the hierarchical regression in which transformational leadership was Block 6 and transactional leadership was Block 7, transactional leadership ($R^2$ change $= 0.08, F (1, 90) = 10.98, p < 0.01$) explained 8% of the total variance when other predictive variables were controlled, and transformational leadership ($R^2$ change $= 0.08, F (1, 91) = 9.08, p < 0.01$) explained 8% of the total variance. When the hierarchical order of transformational leadership and transactional leadership was switched, transactional leadership ($R^2$ change $= 0.10, F (1, 91) = 13.93, p < 0.01$) explained 10% of the total variance when other predictive variables were controlled, however, transformational leadership ($R^2$ change $= 0.05, F (1, 90) = 7.02, p < 0.01$) explained only 5% of the total variance.

Besides transformational leadership and transactional leadership, neuroticism ($r = .37, R^2 \ Change = 0.12$) was also significantly correlated with athletes’ perceived stress. According to Eysenck's theory of personality (1985), neuroticism is positively associated with stress or adverse stimuli; individuals who score higher in neuroticism are emotionally reactive and more vulnerable to stress. The results here were consistent with
previous researches. Neuroticism accounted for approximately 12% of the variance in Perceived Stress, $R^2 = 0.18$, adjusted $R^2 = 0.15$, $F (1, 97) = 14.24$, $p < 0.001$. Overall, neuroticism is a significantly positive predictor of perceived stress when all other predictors are controlled for.
CHAPTER V
DISCUSSION

This study examined the coach-athlete relationship before important games (e.g., a qualifier, a semi-final, or a final). Specifically within a sports-coaching context, this study focused on the interpersonal situation between coach and athletes when athletes perceived stress before an important game or event, utilizing transformational leadership theory to predict that a coach’s transformational leadership might possibly reduce athletes’ perceived stress in such specific scenarios. Coaches’ transformational leadership was also studied through a communication perspective within which sports’ coaching was considered to be a kind of instructional communication between coaches and athletes. Several findings resulted that both support and diverge from previous research studies and extend into the communication area.

First, the study found that the level of a coach’s transformational leadership was negatively associated with athletes’ perceived stress before important games. Such leadership essentially creates a vision to guide followers through inspiration based on emotions and values of followers. In pointing out the significant role of charisma, we found that a coach’s transformational leadership can significantly impact athletes’ stress.
before important games. Bass (1985) indicated that transformational leaders may satisfy followers’ personal needs and enhance their commitment to long-term goals through the personal charisma of leaders, with followers’ satisfaction considered more important than leaders’ satisfaction. Poczwardowski, Barott, and Henschen (2002) classified three basic needs of athletes: psychology for physical performance, for health and well-being, and for professional development and training. A coach exhibiting transformational leadership can provide physical guidance and psychological support to athletes before important games, thus helping them experience released pressure and achieve better performance. Burns (1978) also found that transformational leaders could help followers move to higher levels of motivation by strengthening their own reputation within an organization. Coaches can help athletes enhance their sense of belonging to a team and exhibit greater willingness to help the team with greater focus on the game. This research is consistent with past studies in finding that transformational leadership has a positive impact on followers’ individual outcomes.

Second, we found transactional leadership to be significantly associated with reduction in athletes’ perceived stress, i.e., the results predict that a higher level of transactional leadership may be associated with lower perceived stress before an important game. Bass and Bernard (1985) discussed transactional leadership by focusing on the role of supervision and organization performance; transactional leaders motivate followers through reward or punishment; this is considered to be a lower level of leadership than transformational leadership, because transactional leadership is more likely to attempt keeping things the same and not looking for future or long-term development as in the case of transformational leadership. Bass and Bernard (2008) also
discussed three measurements of transactional leadership: contingent punishment and management-by-exception, either passive or active. Within a sports team, a coach may reward athletes for accomplishment of set goals (contingent reward) and punish them when they fail to give a quality performance or complete goals and tasks (contingent penalization). Coaches may also continually look at an athlete’s performance and provide corrective instruction throughout the whole process (management-by-exceptions active). Alternatively, coaches may not address a problem until it occurs (management-by-exceptions passive). Thus, transactional leadership by coaches is an essential element in reducing athletes’ perceived stress. However, with respect to Hypothesis 4, even though we predicted that a coach’s transformational leadership would have a greater effect than transactional leadership in reducing athletes’ psychological stress, the results failed to support this hypothesis. Instead, transactional leadership showed a stronger effect than transformational leadership. This may be a result of the “hierarchy of needs” based on Maslow’s theory (1970), stating that physiological needs are most fundamental, and only when these lower-level needs have been achieved will people pursue higher-level needs such as belonging, esteem, and self-actualization. When compared with commercial / professional athletes, college athletes may have lower-level needs related more to physical requirements and physical safety needs during the game. Conversely, commercial /professional athletes are likely to have contracts and the best equipment to ensure their physiological needs and safety needs; during games they therefore may be more sensitive to higher-level needs such as belonging to their team, self-respect, and need for self-actualization. In commercial / professional sports areas, therefore, transformational leadership may play a more significant effect on athletes than
transactional leadership, while in college athletic teams, transactional leadership may show a greater effect than transformational leadership.

Third, while Hypothesis 3 predicted that the level of a coach’s laissez-faire leadership would be positively related to an athlete’s psychological stress before important games, the results of this study indicated that laissez-faire leadership had almost no correlation with perceived stress. Lewin, Lippitt, & White (1939) first described laissez-faire leadership as occurring when a leader totally hands off and gives all the power to followers to make decisions; they compared this type of “hands off” leadership style with autocratic leadership and democratic leadership and found that laissez-faire leadership may indeed show high effectiveness and high performance with improved self-motivation when team members have capability for handling their work. However, in this study the target groups are college athletic teams rather than professional teams, so we assume that these athletes do require guidance, feedback and instructions from their coach. They may particularly need a clear game strategy and inspiration from their coach before important games. In some specific individual situations, laissez faire leadership may demonstrate a positive effect, but we assume that, especially in teamwork sports, laissez faire leadership may be positively related to perceived stress. In our study the results showed that laissez faire leadership had virtually no correlation with perceived stress. While we failed to support that laissez faire leadership was positively related to perceived stress, this might be due to the limitations of our sample size. Another explanation could be that the correlation between laissez faire leadership and stress is not direct but mediated by other factors, for example, motivation, empowerment, or identification with the team. Future research could explore these potential indirect paths.
Hypothesis 4 predicts that a coach’s transformational leadership has a greater effect on reducing athletes’ psychological stress than the use of transactional or laissez-faire leadership before an important game. As discussed earlier, the results of this study showed that transactional leadership was a stronger predictor, instead. More importantly, the findings demonstrated that both transformational and transactional leadership are important. Transactional leadership style is more concerned with maintaining the normal flow of management. Transactional leadership use disciplinary power and feedback to motivate followers to perform at their best. However, transformational leadership motivate their followers to go beyond expectations through personal charisma, values, and inspiration.

We believe these findings offer several meaningful theoretical contributions and practical utilizations. This study extends transformational leadership into understanding coaching in relation to athlete stress. Effectiveness in sports coaching has proven to be related to many levels of success. Coaches exert their talent for communication in the competition process by reducing distraction, giving individual consideration and recognition, and improving a team’s cooperation and cohesion (Gould, Guinan & Greenleaf, 2002). A coach plays a significant role through their interactions with team athletes; such interactions may significantly influence athletes’ confidence and psychological status. A transformational coach could produce idealized influence, generate inspirational motivation, create intellectual stimulation, and give individualized consideration, thus to improve athletes’ stress tolerance towards their games. Even though transactional usually considered as a lower level of leadership compare to transformational leadership, however, in this study, within the colleges sports context,
transactional leadership indicated higher contribution to predict athletes’ perceived stress compared to transformational leadership.

From a practical perspective, sports coaches may be able to help athletes cope with their stress before important games by improving transformational coaching and exhibiting their charisma. For instance transformational leadership significantly associated with the number of hours they communication and practice with coach each week, therefore, coaches can increase the time communicate or practice with their athletes to improve their transformational influence. Based on the scores from the survey, some specific behaviors of coach were highly rated by athletes, e.g., talking about their most important values and beliefs during team meetings, and seeking differing perspectives when solving problems in terms of training or during the games, talking optimistically about the future during the speech before game, and trying to instill pride in athletes.

Additionally, athletes’ level of neuroticism has a significant negative association with coaches’ transformational and transactional leadership, and with athletes’ perceived stress. This finding suggests that neuroticism may affect athletes’ perception and interpretation of leadership actions. For example, an inspiring speech by a coach designed to motivate athletes is likely to have a weaker effect on athletes with a stronger neurotic trait. This suggests a more complex relationship among neuroticism, leadership, and stress, which deserves future investigation.

Despite numerous studies exploring the nature of sports coaching through different theories and perspectives, athlete performance is still considered the most important function of sports coaching. Coaches give suggestions to athletes on how to perform to
their utmost ability and, in order to do this, they utilize various strategies and influence the performance of their athletes during competition. It is argued here that with less stress athletes can focus more on the game and their performance. Thus, the findings of this study may help explain why transformational leadership can have significant positive correlations with performance.
CHAPTER VI

LIMITATIONS AND FUTURE RECOMMENDATIONS

While the current study did find significant association between coaches’ transformational leadership and athletes’ perceived stress before important games, there were some limitations.

First, we used a convenient sample, one comprised of college athletes from three universities in the U.S. The sample limits the generalizability of the findings. It has the risk of getting biased results based on the available groups of athletes. The sample over-represented certain ethnicities, such as Asian and under-represented others. In addition, only a limited types of sports were represented in the sample and thus overlooking others.

Second, our research targets were college athletes. The findings may not be generalized to professional athletes in commercial supports. One reason could be that the sources of stress, or stressors could be different between professional and collegiate athletes. For example, stress for college athletes may find its source in academic performance and scholarship in addition to athletic performance. Given their unique stressors, coaches may need to adopt leadership and counseling strategies accordingly. In addition, the findings may not be easily applied to understanding younger K12 student
athletes since their psychological profile is still in a formative stage. These limitations in the present findings point to opportunities for future research that can examine coaching with younger athletes.

A promising direction for future research is to explore the role of culture in sports coaching. Over the past few years, transformational leadership has been widely applied to many applications related to different cultural backgrounds. Singh and Krishnan (2007) discussed that transformational leadership has great influence on followers among different nationalities. The present sample included 47 athletes who identified themselves as Asian, but only 6 of them were international students, meaning that the majority of them share the U.S. cultural background. Ethnicity as a variable did not show a significant correlation with transformational and transactional leadership, or stress. However, according to Hofstede’s (2001) cultural dimensions theory, differences in culture and values may affect behavior. For example, it is interesting to explore whether athletes and coaches’ cultural value orientations, e.g., individualistic versus collectivistic, influence how coaches enact leadership behaviors and how athletes perceive, interpret and react to such behaviors. Pillai, Scandura & Williams (1999) examined the relationship of transformational leadership and leader member exchange to organizational justice and job satisfaction in five different cultures. They found that while there is consistent support for some of the proposed linkages, there are still some differences across cultures. For example, in both western countries and non-western countries, transformational leadership enhanced perceptions of procedural fairness in different cultures, but transformational leadership was not associated with job satisfaction in non-western countries.
Another possibility would be to study athletes participating in more individual types of sports (e.g., tennis, snooker, swimming). Compared to group types of sports, individual types of sports’ athletes have more opportunity to communicate or practice alone, which means they might be more close to their coaches, which may effect on their perceptions towards their coaches’ behaviors and perceptions. Future studies should therefore be extended to further investigation of athletes engaged in different type of sports.

Furthermore, although the present study demonstrated the significant association of coaches’ transformational and transactional leadership with the reduction in athlete’s perceived stress, to understand how coaches actually enact transformational and transactional leadership actions would require qualitative studies that can capture the interactional process between coaches and athletes.
CHAPTER VII

BIBLIOGRAPHY


APPENDICES

Survey

Cleveland State University

Informed Consent Document

Dear Participant:

My name is Bo Zhang and I am a Graduate Student in the School of Communication at Cleveland State University. I am requesting you to complete an online survey containing questions about your attitudes, behavior, and communication with your coach. The purpose of this survey is to gain insight into communication that occurs among Sports coaches and athletes. The survey will ask you questions about your attitudes, beliefs, and behaviors, and your communication with your current coach. It is my hope that information from this survey will contribute to a better understanding of how communication between Sports coaches and athletes impacts team and player
performances. This study is under the supervision of Dr. Guowei Jian, Associate Professor, in the School of Communication at Cleveland State University. In order to participate in this study, you must be 18 years old or older and be a current student athlete of a sports team competing on behalf of your university.

If you agree to participate, you would be filling out the online questionnaire that follows. It should take approximately 15 minutes to complete. There are no other benefits associated with this research except for having the opportunity to share your experience and a chance to win a $50 Amazon gift card prize. The foreseeable risk could be psychological discomforts but the discomforts should be mild and do not exceed those experienced in daily living and the potential for a breach of confidentiality. Participation is completely voluntary and you may withdraw your participation at any time, or skip any questions that you do not feel comfortable answering. If you experience discomfort during your participation and wish to seek out counseling services, you can locate services in your area by going to http://store.samhsa.gov/mhlocator. Information collected prior to withdrawal will be discarded. Also, I encourage you to complete this questionnaire in private to ensure that no one else sees your responses.

All the information from this survey will be confidential and only my faculty advisor, Dr. Guowei Jian and I will have access to the data. The confidentiality of information is strictly protected. Your name and contact information entered at the end of the survey are for the purpose of prize drawing and participation verification only. Your name will be immediately removed from the dataset when collected. The information you enter will not be shared with your coach or other team members. The data from you and other participants will be aggregated prior to any analysis, presentation or publication.
The information you provide will be used for research purposes only and will be stored for five years in a password-protected computer at the primary investigator’s office on the university campus. My faculty advisor Dr. Jian and I are the only persons who will have access to the password-protected data. The information will be erased after five years.

For further information regarding this research please contact me at Email: B.zhang10@csuohio.edu. Phone: 347-205-0687. You can also contact my faculty advisor, Dr. Guowei Jian at Email: g.jian@csuohio.edu or phone 216-687-3995.

If you have any questions regarding your rights as a research participant you may contact the Cleveland State University Institutional Review Board at 216-687-3630.

Address:Parker Hannifin Hall, 2nd Floor
2258 Euclid Avenue
Phone: 216.687.3630
Fax: 216.687.9382
sprs@csuohio.edu

Please indicate your agreement by clicking on “Agree and Proceed” below.

Otherwise, please click on “Withdraw” and you will exit the survey. Thank you in advance for your time and support.

“I have read the description of the research study and consent to participate. I am at least 18 years of age.”

--Agree and Proceed
OR

--Withdraw
What is your age in years?

__________________ years

What is your biological sex?

Male
Female
Other

What is your ethnic background?

White, not Hispanic or Latino
White, Hispanic or Latino
Black or African American
Asian
Native Hawaiian or Pacific Islander
Native American or Alaskan Native
Other________

What sport do you play?

Basketball
Football
Baseball
Swim team
Other________
# of hours / per week spent with the coach strategizing or discussing the game, team etc.

________________

# of hours / week practicing with the team and coach

________________

[Transformational, Transactional, and Laissez-Faire leadership Scale (adapted from Avolio and Bass (1995); due to the proprietary nature of the instrument, only five sample items are presented below]

Please name the most recent game that you have played, which you consider a crucial match, such as a qualifier, semi-final, or championship game:

____________________________________________________________________

Please recall how frequently your head coach demonstrated the following behaviors during the week leading up to that crucial game you named above:

0 = Not at all

1 = Once in a while

2 = Sometimes

3 = Fairly Often

4 = frequently, If not always
Samples items:

1. My head coach provided me with assistance in exchange for my efforts
2. My head coach re-examined critical assumptions to question whether they are appropriate
3. My head coach failed to interfere until problems become serious
4. My head coach focused attention on irregularities, mistakes, exceptions, and deviations from standards
5. My head coach avoided getting involved when important issues arise

[Perceived Team Support Scale (adapted from Rees and Hardy (2002))]

The questions in this scale ask you about your feelings and thoughts within one week before the important game you mentioned above

1 = definitely false
2 = probably false
3 = probably true
4 = definitely true

1. My team helped me with my injuries
2. My team helped me with my performance concerns
3. My team helped me dealing with loss of confidence
4. My team helped me dealing with pressures
5. My team helped me with issues in my personal life.
How many people do you feel comfortable going to for social support to talk about difficult issues?
______________________

Please mark which of the following you go to for social support. Mark all that apply.
___ Coaches
___ Team mates
___ Friends who are not team mates at your college
___ Friends who are not at your college
___ Someone I am dating
___ Spouse
___ Academic advisor
___ Life coach
___ Parents/guardians
___ Family such as brothers, sisters, cousins, etc...
___ Religious leader (e.g., minister, priest, etc...)
___ Other --please specify___________________________________________

[Perceived Team Satisfaction Scale (adapted from Taylor and Bowers (1974))]
The questions in this scale ask you about your feelings and thoughts within one week before the important game you mentioned above

1 = Very Dissatisfied
2 = Somewhat Dissatisfied
3 = Neither Satisfied Nor Dissatisfied
4 = Somewhat Satisfied
5 = Very Satisfied

1. How satisfied are you with your head coach?
2. How satisfied are you with your teammates?
3. How satisfied are you with this team, compared to most?
4. Considering your skill and the effort you put into your work, how satisfied are you with your progress?
5. How satisfied are you with your chance for getting ahead in this team in the future?

[Neuroticism Scale (John & Srivastava, 1999): Due to copyright requirements, the scale cannot be reproduced; please see John and Srivastava (1999) for the full scale]

[The Perceived Stress Scale (PPS) (Cohen, Kamarck & Mermelstein, 1988)]

Please recall how frequent you had the following experiences during the week before the crucial game you named above:

0 = Never
1 = Almost Never
2 = Sometimes
3 = Fairly Often
4 = Very Often

1. How often were you upset because of something that happened unexpectedly during the interaction with coach?
2. How often had you felt that you were unable to control the important things in your team?

3. How often had you felt nervous and “stressed”?

4. How often had you felt confident about your ability to handle your personal problems?

5. How often had you felt that things were going your way?

6. How often had you found that you could not cope with all the things that you had to do?

7. How often had you been able to control irritations in your life?

8. How often had you felt that you were on top of things?

9. How often had you been angered because of things that were outside of your control?

10. How often had you felt difficulties were piling up so high that you could not overcome them?

Can you recall specific coaching behaviors that may have increased or reduced your stress before or during an important game?

________________________________________________________________________

________________________________________________________________________

Please enter your email address to be entered into the gift card raffle.

________________________________________________________________________