EXPLORING LEADERSHIP BEHAVIORS AND COHESION IN NCAA DIVISION III BASKETBALL PROGRAMS

DISSERTATION

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By

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ABSTRACT

This study examined the perceptions of leadership style of Division III head basketball coaches and whether it had an effect on the perceived cohesion of the team. The relationships of leadership and cohesion with both success and satisfaction were also explored. In addition, this study also examined variables such as gender and player status (starters or non-starters) to determine if they had an effect on leadership and cohesion.

A combination of convenience and random sampling was used to select potential participants for the study. After receiving the agreement to participate, packets containing a questionnaire for each athlete and head coach, as well as an explanation of the study and instructions, were mailed to the teams. Fourteen of the 21 teams returned their questionnaires, with 13 coach and 145 athlete questionnaires being usable.

Athlete questionnaires consisted of 35 items from the Leadership Scale for Sport (LSS), examining four behaviors of leadership: Training and Instruction, Social Support, Democratic Behavior, and Positive Feedback. Also on the athlete questionnaire were 18 items from the Group Environment Questionnaire (GEQ), which measure four dimensions of cohesion: Attraction to Group – Task, Attraction to Group – Social, Group Integration – Task, and Group Integration – Social. One item for measuring overall satisfaction was included, as well as nine demographic items. Coach questionnaires included only the 35 leadership items and seven demographic items.
Results showed a significant relationship between leadership and cohesion, specifically between Training and Instruction behaviors and three of the four cohesion dimensions (Attraction to Group – Task, Group Integration – Task, Group Integration – Social). Other noteworthy findings included the significant relationships found between leadership and success, leadership and satisfaction, cohesion and success, and cohesion and satisfaction. Also, there was a significant difference in perceived cohesion between starters and non-starters; no significant difference in perceive leadership behavior was found between these groups. There was a significant difference between genders on leadership behaviors, with men rating each behavior higher. No significant difference was found between genders on cohesion. A discussion of the results includes practical implications for collegiate coaches and athletes and recommendations for future research.
Dedicated to all of those who have supported me along the way…
I wish to thank my doctoral advisor, Dr. Brian Turner. His guidance throughout this process has been immeasurable. Dr. Turner allowed me to make mistakes, correcting me when needed, which enabled me to feel my way through this entire learning process. I am forever grateful for that. I also truly appreciate the time and effort he put in as he guided me to my first publication.

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CHAPTER 1

INTRODUCTION

In all levels of team sport, a coach’s leadership behavior has an impact on members of his or her team. Whether through instructional suggestions, role model behavior, or social support, a coach plays a vital role in the everyday functioning of a team. One way in which coaches can affect teams is through team cohesion. Scholars have pointed to leadership and cohesion and their relationship as having the largest impact on satisfaction and/or performance success (Trail, 2004). Several others have discussed the connection between coaches’ leadership behaviors and cohesion as well (Carron, 1978; Gardner, Shields, Bredemeier, & Bostrom, 1996; Spink & Carron, 1994; Westre & Weiss, 1991; Widmeyer, Carron, & Brawley, 1993). House (1971) hypothesized that when tasks are interdependent and varied, consideration behavior on the leader’s part would result in cohesiveness among members. Likewise, Turman (2003) emphasized the valuable role a coach plays in the development of cohesion in his/her team.

Since athletes will often times base the quality of their athletic experience on outcomes such as satisfaction and success, the link between leadership, cohesion, and these consequences are important. Westre and Weiss (1991) found that in general,
athletes who perceive higher levels of team success rated their coaches as exhibiting higher frequencies of desirable leadership characteristics and perceived a higher level of team cohesion. Therefore, it is imperative that coaches identify the leadership style that best fits the situation, and take the essential steps to ensure his or her team is a cohesive unit.

As previously noted, cohesion has proven to be an important aspect in team success and satisfaction of team members (Westre & Weiss, 1991). Because of its value, coaches recognize that cohesion is a vital aspect in developing a team. What coaches do not always realize is how their leadership style and actions can affect their team’s cohesion. Part of the problem is that coaches and players sometimes perceive the coach’s leadership style differently. For example, while a coach may think he has a democratic coaching style, his players may see him as more of an autocratic leader. In regards to cohesion, some leadership styles are more conducive in promoting cohesion (Westre & Weiss, 1991). If a coach is aware of the important role cohesion can play for small group sports, one would assume that a significant amount of a coach’s interaction with the team would involve strategies to promote and develop unity and cohesion among athletes (Turman, 2003). Therefore, it is essential that coaches recognize their perceived leadership style, as well as the strength of team cohesion, in order to maximize the team’s potential.

**Leadership**

Leadership is the ability to influence people toward the attainment of goals (Dupuis, Bloom, & Loughead, 2006; Laios, Theodorakis, & Gargalianos, 2003).
Similarly, Tosi and Mero (2003) define leadership as “a form of organizationally based problem-solving that attempts to achieve organizational goals by influencing the action of others” (p. 248). Leadership is just as, if not more, vital in the athletic world as in the business world. The importance of effective leadership has been seen by athletes and coaches as a critical component to achievement (Chelladurai & Riemer, 1998) and athlete satisfaction (Riemer & Chelladurai, 1995). As a coach, one is expected to lead his or her players to both individual and common goals throughout the season. Athletes look to their coach as a source of knowledge and guidance, and deem the coach-athlete relationship as vital to a team’s success. As found by Dupuis et al. (2006), most team captains alluded to the importance of having a good relationship with their coach.

An abundance of the leadership literature has been in the organizational behavior and managerial genres over the last several decades. The depth and amount of research conducted on leadership points to the significance of its study. Chelladurai (1978) states that leadership “is the most critical dependent variable in organizational analyses” (p. 37). By the examination of an organization’s leaders, one is able to discern elements of the organizational culture, expectations, and success. While it is undeniable that leadership is important in all types of organizations, researchers have suggested differences in leadership dimensions and behaviors. For example, Yukl’s (1981) managerial practice survey alone lists 11 dimensions of leadership. The dimensions include networking, supporting, managing conflict and team building, motivating, recognizing and rewarding, planning and organizing, problem solving, consulting and delegating, monitoring operations and environment, informing, and clarifying roles and objectives.
In 1985, Bass used three dimensions to describe transformational leadership: Charismatic leadership, Intellectual stimulation, and Individualized consideration. Nineteen years later, Arnold, Arad, Rhoades, and Drasgow (2004) used the premise of empowering subordinates, or transformational leadership, to develop the Empowering Leadership Questionnaire (ELQ). The ELQ measures five dimensions of leadership: leading by example, participative decision making, coaching, informing, and showing concern/interacting with the team. Leaders may display all or some of the dimensions according to the situational and member characteristics at hand. Reviewing these few examples lends credence to the notion of just how important leadership construct development and measurement have been over the last 20 years.

Cohesion

Some social scientists deem cohesion the most important small group variable (Bollen & Hoyle, 1990). Because of this, cohesion has been studied in various arenas, including sports. Cohesion research in the sports context has proven to be valuable to scholars in all fields due to the high degree of groupness (Carron, Colman, Wheeler, & Stevens, 2002). Cohesion has been defined as the “tendency for a group to stick together and remain united in the pursuit of its goals and objectives” (Carron, 1982, p. 124). Similarly, it has been described as “a dynamic process that is reflected in the tendency for a group to stick together and remain united in the pursuit of its instrumental objectives and/or for the satisfaction of member affective needs” (Carron, Brawley, & Widmeyer, 1998, p. 213).
Team cohesion is a multidimensional process involving specific coaching behaviors as well as interactions among the coach, individual team members, and the overall sport context (Carron, 1982). Team cohesion may be instrumental in the achievement of group goals and also can become a team goal itself (Martin, 2002). In fact, a lack of cohesion is often cited as a reason for failure to meet expectations (Westre & Weiss, 1991). In other words, when a goal is not met, athletes and coaches alike often point to cohesion as the reason for their disappointment.

The study of group cohesion falls under the heading of group dynamics. Group dynamics represents two processes occurring within groups: cohesion and locomotion (Carron, Widmeyer, & Brawley, 1985). Cohesion, as defined above, is concerned with the development and maintenance of the group. Locomotion is the activity by which the group seeks to achieve its objectives. Consequently, cohesiveness directly contributes to group maintenance and therefore indirectly to group locomotion (Carron et al., 1985).

In 1982, Carron developed a model of cohesion that included four general antecedents to cohesion: environmental, personal, leadership, and team factors. Using these as a foundation, Carron et al. (1985) developed the Group Environment Questionnaire (GEQ), which described the various components of cohesion. The GEQ, the most widely used cohesion instrument to date, has its flaws, but has laid the foundation with both group and individual interactions, along with task and social components.

Antecedents of cohesion were broken down into four categories of factors (Environmental, Personal, Leadership, and Team) by Carron in 1982. Some of these
antecedents include organizational restrictions, size of the group, type of team/group, personalities, personal satisfaction, desire for group success (Widmeyer et al., 1985), and gender (Wrisberg & Draper, 1988).

Several positive consequences of cohesion exist, such as increased self-esteem, sense of security and trust, conformity to group norms (Widmeyer et al., 1985), and a decreased turnover ratio (Westre & Weiss, 1991). On the other hand, extreme levels of cohesion have been known to have negative consequences such as anxiety, abusive athlete-athlete relationships, resistance to change (Widmeyer et al., 1985), and groupthink (Hogg & Hains, 1998; Janis, 1982).

It is interesting to note that two of cohesions’ stated antecedents, satisfaction and success, can also be viewed as consequences (Carron, Colman et al., 2002). The timing of the relationship is varied, making the cohesion process cyclical in nature. For example, a team may be very talented, winning their conference and doing well in post-season play. Chances are that because they are a talented team and winning a lot of games, the positive atmosphere surrounding the program aids in team cohesion. Looking at it from the other direction, this same team may be winning so many games because they are a cohesive unit. Consequently, since the relationship is such a dynamic one, cohesion has been very difficult to measure.

Statement of Problem

Leadership, the ability to influence people toward the attainment of goals (Laios et al., 2003), has been said to play a key role in the success of athletic teams. In fact, group performance and team member satisfaction are two of the very important
consequences of leadership (Dupuis et al., 2006). Because of the importance it holds, much research has been done on leadership behaviors of coaches. Chelladurai & Saleh (1978) divided various leadership behaviors into five dimensions for their Leadership Scale of Sport (LSS). These dimensions are: Training and Instruction, Democratic Behavior, Autocratic Behavior, Social Support, and Positive Feedback. Organizational constraints and experience levels can also dictate differences in leadership behavior (Chelladurai & Carron, 1978). Each behavior a coach displays has an impact on his or her athletes.

Athletes’ perceptions and preferences of their coach’s leader behaviors fulfill half of the coach-athlete relationship. Their perceptions are what affect the actual outcomes (such as satisfaction or performance). For example, if an athlete prefers positive feedback (rewarding good behavior) and their coach does not display this behavior, chances are the athlete will not be satisfied with their relationship or place on the team. Unfortunately, the coach may have no way of knowing their athletes preferences. The coach may be choosing their behavior based on performance response. Riemer and Chelladurai (1995) suggest coaches may be better off when they emphasize training and instruction and positive feedback behavior in accordance with task demands and member performance, than member preferences. However, at the same time, Riemer and Chelladurai say that coaches need to be more attuned to member preferences in the case of democratic, autocratic, and social support. Their findings also indicate that players who prefer more of a particular dimension may also perceive greater amounts of that behavior. Therefore, if a coach can identify which behaviors athletes prefer, he or she may be able to direct
leadership behaviors to suit the needs of the athletes in order to increase performance and satisfaction.

Cohesion is defined as “the tendency for a group to stick together and remain united in the pursuit of its goals and objectives” (Carron, 1982, p. 124). Carron, Brawley, and Widmeyer (1985) stated that cohesion also includes the pursuit for the satisfaction of member affective needs. In other words, team cohesion may be instrumental in the achievement of group goals and also can become a team goal (Martin, 2002). Cohesion has also been recognized as a reason for team success. Westre and Weiss (1991) say that although some athletes may not perform well as individuals, they may be unbeatable as members of a collective unit. On the other hand, a lack of cohesion is often cited as a reason for a team not meeting expectations.

From a coach’s perspective, team cohesion is imperative because it has been linked to increases in performance and member satisfaction. Also, the more cohesive teams are, the less likely they are to lose members (Westre & Weiss, 1991). Unfortunately, coaches do not always realize that they have an impact on their team’s cohesion. Carron (1982) found that one of the most important antecedents of sport cohesion is the role of the coach developing and maintaining team togetherness. Other antecedents of cohesion include environmental, personal, leadership, and team factors (Carron, 1982).

Not all teams are affected by cohesion in the same way. Previous research has shown that gender differences exist in perceptions of team involvement (Spink, 1995). White (1993) found that female athletes were significantly more team oriented than male
athletes. In other words, cohesiveness is a relatively more common feature of female sports teams than of male sports teams (Wrisberg & Draper, 1988). This means that the cohesion aspect of their athletic participation holds a greater weight in the minds of females than those of males.

Purpose of Study

It is important to note the teams involved in this study are NCAA Division III programs. The current literature on leadership and team dynamics puts much, if not all, of its emphasis on Division I collegiate or high school-aged athletes. While Division III athletes have much in common with their Division I counterparts (Copeland, 2007), there are several differences. For starters, Division III schools do not offer athletic scholarships (NCAA, 2008), while most Division I institutions do. Also, studies have revealed that Division III student-athletes are looking for a rich student-athlete experience, hoping to balance their time as both a student and an athlete. Accordingly, nearly half of those surveyed chose their school because of academic offerings or reputation (Copeland, 2007). Another difference found between Division I and III athletics is that Division I schools emphasize the entertainment value of athletics in their mission statements, whereas Division III schools do not (Siegel, 2003). Keeping these differences in mind, it is probable that Division III student-athletes participate in sport as more of an “extracurricular” activity, while some Division I student-athletes may view athletics as the only means to get an education (via scholarship) or as a stepping stone to the next level.
In 2004, Kozloff studied the motivation, participation, and goal orientation of Division III athletes. He found that the emphasis was placed on social aspects first, followed by competition, fitness or skill development, and affiliation, respectively. This being said, it is possible that because of the different circumstances behind the level of competition, Division III athletes are looking to get different things out of their experience than Division I athletes. In other words, what makes for a satisfying and successful experience for a Division I athlete might not be the same as for a Division III athlete. This study hopes to address what is needed in terms of leadership and cohesion at the Division III level.

This research project intended to examine the perceptions of leadership style of coaches, and whether or not it has an effect on the perceived cohesion of the team. By administering the Leadership Scale for Sports (LSS) questionnaire to both the athletes and their head coach, perceptions of leadership behavior were determined and contrasted. These results were then compared to the results of the Group Environment Questionnaire (GEQ) to determine if there was a relationship between leadership style and team cohesion. Demographics such as player role and year in school were utilized.

Since teams of both genders were examined, this study were also analyzed differences between male and female perceptions of leadership and cohesion and if there was a significant difference in the leadership style’s effect on cohesion between genders. More specifically, this study looked at the success and satisfaction rate of each team compared to their perception of cohesion, as well as their coach’s leadership style.
Research Questions

1. Is there a significant difference in head coach’s perception of leadership behavior and athlete perception of leadership behavior?

2. Is there a significant relationship between the athletes’ perceived leadership style of their coach and team cohesion?

3. Is there a significant relationship between perceived leadership behaviors and success?

4. Is there a significant relationship between team cohesion and success?

5. Is there a significant relationship between perceived leadership behaviors and satisfaction?

6. Is there a significant relationship between team cohesion and satisfaction?

7. Is there a significant relationship in perceived leadership style and team gender?

8. Is there a significant difference between men and women’s team cohesion?

9. Is there a significant difference in perceived cohesion between starters and non-starters?
10. Is there a significant difference in perceived leadership style between starters and non-starters?

11. Does gender affect the relationship between leadership and cohesion?

Limitations

The researcher acknowledges the following as five potential limitations of this study:

1. The use of a single questionnaire may have produced information that is only representative of one point in time and may have been influenced by recent happenings or events. This is of concern especially because of the dynamic nature of cohesion.

2. The data is self-reported, and therefore may not be a completely accurate reflection of reality.

3. Despite assurances of confidentiality, participants in the study may have been hesitant to provide accurate information due to the perceived negative consequences.

4. Participants in this study may not have understood the importance of the research, and therefore may not have devoted sufficient time or thought to their responses.

5. This study may be limited by the restrictions imposed by the validity and reliability of the selected measures.
Delimitations

The scope of the study is delimited in the following ways:

1. The study is limited to NCAA Division III basketball programs.

2. The sample is not completely random. Approximately half of the participating programs were contacted by the researcher in hopes of maintaining a high response rate.

Definition of Terms

The following are the constitutive definitions of the terms that appear in this study.

Leadership- the ability to influence people toward the attainment of goals (Laios, et al., 2003)

Perceptions- viewpoints shaped by observations and experiences.

Training & Instruction- coaching behavior aimed at improving the athletes’ performance by emphasizing and facilitating strenuous activities; teaching skills, techniques and tactics of the sport; clarifying the relationship among the members; and by coordinating the athletes’ activities.

Democratic Behavior- coaching which allows greater participation by the athletes’ in decisions regarding group goals, practice plans, and game tactics and strategies.

Autocratic Behavior- coaching which involves independent decision making and stresses personal authority.
**Social Support**- behavior characterized by a concern for the welfare of individual athletes, positive group atmosphere, and warm interpersonal relations with members.

**Positive Feedback**- behavior which reinforces an athlete by recognizing and rewarding good performance (Chelladurai & Saleh, 1979).

**Cohesion**- the tendency for a group to stick together and remain united in the pursuit of its goals and objectives (Carron, 1982)

**Group Integration-Task**- Individual team member’s feelings about the similarity, closeness, and bonding within the team as a whole around the group’s task.

**Group Integration-Social**- Individual team member’s feelings about the similarity, closeness, and bonding within the team as a whole around the group as a social unit.

**Individual Attractions to the Group-Task**- Individual team member’s feelings about his/her personal involvement with the group task, productivity, and goals and objectives.

**Individual Attractions to the Group-Social**- Individual team member’s feelings about his/her personal involvement, acceptance, and social interaction with the group (Carron et al., 1985).
CHAPTER 2

REVIEW OF LITERATURE

The purpose of this chapter was to present a review of literature pertaining to the variables in this study. The review is presented in two main sections, leadership and cohesion. The leadership section describes leadership behavior models and dimensions from (a) organizational and managerial fields, and then by (b) those specifically created for sport. The cohesion section provides a review of (a) dimensions of cohesion; (b) antecedents and relationships; (c) facilitators and deterrent; (d) consequences; and (e) development of cohesion.

Leadership

Path-Goal Theory – House (1971)

The path-goal theory focuses on members’ personal goals, their perceptions of the organizational goals, and the most effective path to these goals. In other words, it specifies how leadership should explain the path of members to desired goals or rewards (Chelladurai, 2006). Essentially, leadership serves as an instant source of rewards and satisfaction or as a path to future rewards and satisfaction. House (1971) said that leadership supplements motivation that organizational factors, such as clarity of goals, usually provide.
The path-goal theory also proposes that the motivational effect of leadership is a function of the situation. In House’s (1971) point of view, members and environmental pressures and demands make up the situation. Specifically, members’ personalities and perceptions of their ability have an impact on the type of leader behavior preferred. Leaders should take heed and alter their leadership behavior accordingly for maximum effectiveness. Similarly, leader behavior should also change depending on the nature of the task (Chelladurai, 2006). For example, if a coach is directing a team through a drill in practice, his or her behavior should be one of instruction, focusing on the task at hand. If an athlete comes to their coach with a problem regarding his academics, a coach should approach the situation in more of a social manner. If the coach used the same leadership behavior in both situations, the outcome probably would not have been as effective as if he or she tailored the behavior to the situation. In essence, the path-goal theory emphasizes members’ abilities and dispositions more than other factors that affect leadership behavior. House (1971) felt that it is a leader’s job to align the members’ goals with organizational goals. If these align, both parties will achieve satisfaction.

Fiedler’s Contingency Model of Leadership – Fielder (1967)

Fiedler’s model focuses on the fit between the leader’s style and situational favorableness (Chelladurai, 2006). The favorableness of a situation is defined by leader-member relations, task structure, and power position of the leader. In Fiedler’s model, the leader’s style is relatively stable and is considered a personality characteristic. The most important implication of Fiedler’s theory is that any leadership style can be effective if it
is matched with the situation and favorableness (power position of the leader, task structure, and leader-member relations; Chelladurai, 2006).

Also noteworthy is the fact that changing the situation is easier to do than changing the leadership style. An organization can alter the situation by changing the composition of the group, varying the extent of rules and procedures, or altering the power of the leader (Fiedler, 1967). Chelladurai (2006) suggested that leadership style, situation, and favorableness more often align in the coaching sport environment because athletes participate voluntarily and both coach and athletes have the organizational goal of pursuit of excellence. He also stated that because athletes’ goals are aligned with the coaches’, an autocratic style is often times effective. Figure 2.1 shows Chelladurai’s (2006) adaptation of Fielder’s Contingency Model of Leadership.
Situational Favorableness

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<th>Poor</th>
<th>Poor</th>
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<tr>
<td>Task Structure</td>
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<td>Unstructured</td>
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<tr>
<td>Leader position power</td>
<td>Strong</td>
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<td>Strong</td>
<td>Weak</td>
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<td>Weak</td>
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Note. *LPC = Least Preferred Co-Worker

Figure 2.1: Fiedler’s Contingency Model of Leadership as adapted by Chelladurai (2006)
Transactional Leadership

Transactional leadership exists in organizational settings where managers clearly state tasks and how they might be performed. Followers put forth the effort in achieving organizational goals in exchange for monetary rewards, psychological compensation, or to avoid being punished (Weese, 1994). Avolio et al. (1991) suggested explicit communication consisting of goal clarification and acceptance is crucial to the success of transactional leadership. Transactional leadership is based on the assumption that the environment of the work group is somewhat stable and that both the leader and members are satisfied with the group’s purposes and processes (Chelladurai, 2006).

Transactional leadership influences the cognition and abilities of the member, as well as the exchanges between the leader and member. The exchanges lead to lower turnover and absence rates, satisfaction, and expected performance (Bass, 1985). Although this form of leadership is sufficient for the completion of everyday tasks, it has its limits (i.e., lower satisfaction and expected performance) and does not fit the image that most people hold for leadership (Weese, 1994).

Transformational Leadership

Transformational leadership is the process of influencing major changes in attitudes and assumptions of organizational members and building commitment for the organizations missions and objectives (Yukl, 1981). Transformational leaders are generally charismatic and inspirational while intellectually stimulating followers by promoting rationality and problem solving. They also provide individual consideration to followers by attending to their needs for growth and development (Purvanova, Bono, &
Dziewczynski, 2006) by maximizing the potential of talented subordinates and helping them develop their own leadership abilities (Kent & Chelladurai, 2001). Transformational leaders, in turn, bring about higher levels of performance and commitment in subordinates because their personal actualization needs are being met (Weese, 1994). According to Chelladurai (2006), instead of accepting both situational and member characteristics as concrete, transformational leaders feel that those characteristics are adaptable, and change them accordingly. Weese (1995) believed that this factor is the biggest contribution of a transformational leader. Another key in transformational leadership is that it cascades down to middle managers who emulate the leadership style to their subordinates. This provides consistent messages to all members of the organization (Kent & Chelladurai, 2001).

According to Bass (1985), transformational leadership is made up of three dimensions. The first, Charismatic leadership, concerns “the faith and respect in the leader and the inspiration and encouragement provided by his or her presence” (p. 105). While some researchers, including Bass, feel transformational leadership encompasses charisma, others see each as separate, overlapping dimensions (Purvanova et al., 2006). The second of the three dimension named by Bass (1985) is Intellectual stimulation. Intellectual stimulation is defined as “the arousal and change in followers of problem awareness and solving, of thought and imagination, and of beliefs and values, rather than arousal and change in immediate action” (p. 99). Lastly, Individualized consideration refers to the leader treating each subordinate according to their needs and capabilities.
Research has shown that these dimensions have positive effects on other relevant variables such as commitment, satisfaction, and motivation (Kent & Chelladurai, 2001).

In 2004, Rafferty and Griffin developed a scale to measure the five dimensions of transformational leadership. Their scale varies slightly from Bass’s (1985) scale in that it breaks down the dimensions a little further. The first dimension, vision, is based on organizational values. Keeping these values in mind, the leader presents an idealized vision of the future. Inspirational communication is carried out by expressing a positive and encouraging outlook in order motivate and build confidence in members. The third dimension, supportive leadership, emphasizes the concern for members and their needs. Intellectual stimulation occurs when the leader facilitates members’ comprehension of problems, and directs them to solve the problems in new ways. Finally, personal recognition occurs when the leader acknowledges and praises achievement of specified goals.

Transformational leadership influences the emotions of members, as well as their values, goals, needs, and self-esteem (Bass, 1985). These influences raise the spirits and aspirations of members who strive to achieve levels of performance beyond expectations (Chelladurai, 2006). For example, a college basketball coach may inspire his or her athletes to volunteer in the community, or spend extra time on their studies. These duties are not required, but benefit both the athlete and the institution (Bass & Avolio, 1994). Bass (1985) also suggested that transformational leadership will result in more engaged, more devoted, and less self-concerned employees.
The study of transformational leadership has led to some interesting findings. One finding of note came from Doherty and Danylchuk (1996). They found that transformational leadership from athletic administrators were positively associated with coaches’ perceptions of leadership effectiveness, satisfaction with leadership, and the extra effort of achieve organizational goals. However, another study by Weese (1996) indicated that there was no significant relationship between transformational leadership and organizational effectiveness. Likewise, Kent and Chelladurai (2001) found there was a lack of association between transformational leadership and organizational citizenship behavior. Research has also revealed differences in transformational leadership when it comes to gender. Doherty (1997) found that female and younger athletic administrators exhibited more transformational leadership than their male and older counterparts.

As noted, transformational leadership empowers subordinates. Arnold, Arad, Rhoades, and Drasgow (2004) used this premise to develop the Empowering Leadership Questionnaire (ELQ). The ELQ measures five dimensions of leadership – leading by example, participative decision making, coaching, informing, and showing concern/interacting with the team. *Leading by example* includes setting a high standard and working hard to achieve those standards. Leaders are expected to act as a role model for their subordinates. *Participative decision making* includes listening to the group’s ideas and suggestions, giving members a chance to voice their opinions. The third dimension, *coaching*, provides help to members to improve their performance. Coaching also encourages members to share ideas and work together. *Informing* consists of explaining the organization’s goals, rules, policies, decisions, and how the group fits into
the organization. The last dimension is *showing concern and interacting with the team.* This focuses on caring about members’ personal problems and their well-being. Each of the dimensions highlights at least one of the defining characteristics of transformational leadership. Leaders may display all or some of the dimensions according to the situational and member characteristics at hand.

*Leader Member Exchange*

Leader-member-exchange (LMX) research studies the two-way, reciprocal exchanges between a leader and follower (Wang, Law, Hackett, Wang, & Chen, 2005). The leader defines what the subordinate’s role (and expectations) will be and the subordinate carries out their respective role and is rewarded accordingly (Case, 1998). LMX has also been described as the degree of trust, competence, loyalty, perceived equity of exchange, mutual influence, and/or amount of interpersonal attraction between leader and subordinate (Case, 1998). High-quality LMX enhances mutual respect and support (Kent & Chelladurai, 2001), while low-quality LMX reduces both support and respect. Role negotiation occurs over time, defining the quality and maturity of a leader-member exchange (Wang et al., 2005).

Because of ever-evolving nature of LMX, not all subordinates have the same relationship with the leader. In fact, leaders tend to develop close relationships with only a few subordinates. Being one of these few, termed the “in-group”, can increase job latitude and confidence (Case, 1998). All subordinates not considered to be in the in-group are considered to be “out-group” members. Out-group members have a limited degree of power and their only requirement is to comply with their prescribed role.
expectations (Case, 1998). For example, on an athletic team, starters and non-starters naturally form “in” and “out” groups. Whether deliberate or not, these athletes have different relationships with their coach. In fact, on an LMX Scale developed in 1975 by Graen and Cashman, starters scored significantly higher on the scale (Case, 1998).

It is important to note that leader-member exchanges have a significant impact on employee satisfaction, retention and turnover, commitment, role clarity, and performance (Basu & Green, 1997; Case, 1998). Leader member exchanges have also been found to be related to job attitudes, leader attention, leader support, participation in decision making, and the amount of time and energy invested in the job (Case, 1998). This being said, it is nearly essential for relationships between leader and subordinate to be high-quality in order to benefit organizations.

Wang et al. (2005) suggested that although LMX and transformational leadership overlap conceptually, LMX acts as a mediator between transformational leadership and task performance/organizational citizenship behavior. This premise is based on the notion that high-quality LMX relationships reflect affective bonding, along with unstated mutual expectations of reciprocity (Wang et al., 2005). Further, they suggested that transformational leadership builds and cultivates high-quality LMX.

While transformational and LMX intertwine in some regards, they differ in others. For example, transformational leadership (and especially charismatic leadership) has a stronger influence on members’ commitment to the organization while LMX has the sole influence on members’ extra-role behaviors (Kent & Chelladurai, 2001). This suggests that perhaps subordinates wish to be in the in-group, and go the extra mile to do
so. Also, Kent and Chelladurai (2001) found that perceived LMX was not significantly correlated with intellectual stimulation. Because LMX is more related to the interpersonal aspects rather than the cognitive aspects, it was unrelated to the perceived intellectual stimulation component of transformational leadership.

Multidimensional Model of Leadership – Chelladurai (1978)

It is important to note that leadership behaviors depend on characteristics of the individuals involved as well as organizational contexts. The multidimensional model of leadership (MML; Chelladurai, 1978; 1993) synthesizes existing theories of leadership to focus on three states of leader behavior: required, preferred, and actual. Each state encompasses different behaviors depending on the perspective of the individual.

The MML also classifies antecedents of leader behavior into situational, leader, and member characteristics. Osborn and Hunt (1975) identified situational characteristics as macro variables such as technology, size, and formal structure of the group. The MML includes task of the group, organizational goals, the norms of a particular social setting, and the nature of the group as other situational characteristics that influence and control leader behavior (Chelladurai, 2006). For example, in an athletic setting it is permissible for a coach to yell at a player or make physical contact when demonstrating a particular skill. In a regular managerial office setting, this would not be acceptable. It is evident that each situation must be taken into consideration when determining which leadership behavior(s) is/are required. The nature of the group as a whole, or member characteristics, will also influence required leader behaviors (Chelladurai, 1993a). For example, a coach of a junior high team will have different leader behaviors than a coach
of a Division I team because that is what is required of them to maximize the team’s success and quality of experience.

Both situational and member characteristics not only affect required leadership behaviors, but preferred leadership behaviors of the members as well. The impact of the task is an immediate determinant of member preference (House, 1971). For example, a basketball player doing an every day shooting drill is going to need less guidance and instruction than one who is learning a play for the first time. As mentioned before, situational characteristics such as unit size, technology, goals, and norms place some constraints on the leader. These same characteristics influence member preferences for specific forms of leader behavior (Chelladurai, 2006). Researchers have found that member preferences for specific forms of leader behavior therefore reflect the influences of the situation (Bass, 1985; House, 1971). For example, a member of a five-person tennis team will most likely look for and expect more interpersonal relations with his or her head coach than a member of a football team, solely based on the size of the team and the coach-athlete ratio.

Individual personality traits also influence members’ preferences for different leader behaviors. For example, while athlete A may want the coach to interact in a more social way, athlete B may need more feedback to accommodate the need to achieve. Likewise, Morse (1976) suggested that an individual’s attitude toward authority affects his or her reaction toward different types of supervision. In an athletic setting, athletes whose respect for authority is high are more amenable to their coaches’ authority than those whose respect for authority is low (Chelladurai, 2006).
The last state of leader behavior, and the most important, is actual behavior (Chelladurai, 2006). Leaders can be categorized as either task-oriented or relations-oriented (Fiedler, 1967). Task-oriented leaders tend to focus more on task accomplishment. They tend to act in a more autocratic manner while relations-oriented leaders are more participative and less directive (Chelladurai, 2006). Along the same lines, Chelladurai points to McClelland and Winter’s (1969) theory of managerial motivation to describe the isolated needs for power, achievement, and affiliations by leaders. McClelland and Winter found that managers with a high level of need for power, a moderate level of need for achievement, and even lower levels of need for affiliation were more effective than those with a low level of the need for power and a higher level of both achievement and affiliation.

The ability of a leader also impacts leader behavior. According to Katz (1972), ability consists of his or her knowledge and expertise concerning various aspects of the group task and the processes necessary for the attainment of goals. It also consists of the leader’s ability to conceptualize the organization as a whole, analyze problems, and persuade subordinates to support their approach. Depending on where the leader’s ability lies, he/she should be confident and seek out the situations which will coincide with his/her strong points (Chelladurai, 2006). For example, head coaches who excel in leading drills and teaching plays to a team should keep that as their focus; if they are not as strong in relating to players on a personal level, they should find an assistant coach who holds this ability.
The last portion of the MML contains the consequences of leader behavior: satisfaction and performance. “The degree to which the three states of leader behavior are congruent (i.e., the actual behavior is consistent with both the preferred and required behaviors) influences performance and satisfaction” (Chelladurai, 2006, p. 198). For example, say a coach acts in a strictly autocratic, “all business” manner around his elementary-aged basketball team, while the kids are there to have fun with their friends. The coach gets angry because the children are not listening and winning, and the kids are not having fun because they consider the coach to be “mean”. No one’s goals (satisfaction and/or performance) are being met because the actual leader behavior is the polar opposite of the preferred and required behavior. One important aspect of the MML that should be taken into consideration is the feedback loop. It is likely that at some point actual, preferred, and required leadership behaviors will not coincide. Therefore, it is imperative that communication occurs between parties involved so that practices and/or expectations can be changed to increase satisfaction and performance level. Figure 2.2 illustrates Chelladurai’s MML.
Dimensions of Leader Behavior in Sport & the Leadership Scale for Sport (LSS) -
Chelladurai & Saleh (1980)

Using Chelladurai’s MML as a base, Chelladurai and Saleh (1980) were the first to gear the leadership research towards sport with the development of the five dimensions for leader behavior in sport, and consequently, the Leadership Scale for Sport (LSS). The LSS dimensions are consistent with House’s Path-Goal theory and are conceptually distinct categories of coaching behavior (Chelladurai & Saleh, 1980).

The first dimension, *Training and Instruction*, is aimed at improving the athlete’s performance by emphasizing hard training, skills, techniques, and tactics of the sport. Clarifying the relationship among members and coordinating members’ activities also falls into this dimension. Ultimately, training and instruction is related to the process of task accomplishment (Chelladurai, 2006). *Social support* is characterized by a concern for the welfare of athletes and promoting a positive group atmosphere. The third dimension is *positive feedback*. Positive feedback behavior reinforces an athlete by recognizing and rewarding good performance. The final two dimensions focus on the degree to which the leader allows members to participate in decision making. *Democratic behavior* allows for greater participation by athletes in decisions pertaining to group goals, game tactics, and practice methods. Lastly, *autocratic behavior* stresses personal authority and involves independent decision making.

The LSS was designed to address the unique aspects of sport in terms of organizational behaviors and structure. For starters, those involved in athletics spend a disproportionate number of hours in training for a competition that only lasts
approximately one hour (Chelladurai & Saleh, 1980). Second, organizational rewards (winning) are denied to at least one of the contestants involved in an athletic event. Despite this, athletes and coaches continually strive for a reward all while knowing they may be deprived of it due to inferior performance or pure chance (Chelladurai & Saleh, 1980). Finally, members of an athletic team only essentially perform for a period of three to six months at a time (Chelladurai & Saleh, 1980). It is not often that a successful business stops working and disassembles after a few months, just to regroup again.

**Decision Styles**

Previous leadership literature has identified varying degrees of participation decision styles (Chelladurai, 1993b; Chelladurai & Haggerty, 1978; Chelladurai, Haggerty, & Baxter, 1989). From autocratic to participative, decision making is a social process (Chelladurai, 2006). While some feel that the personality of the leader has to do with the decision style they choose, others believe the situation is what determines whether or not autocratic or participative decision making should be used (Vroom & Yetton, 1973).

Both styles, participative and autocratic, have benefits and drawbacks. Participative decision making allows for higher rationality, better understanding, ownership, and better execution of the decisions (Chelladurai, 2006). These benefits occur because a group has more information and insight than just one person. This allows for the leader to understand the problem at a deeper level. Also, in taking ownership of a decision, it is more likely that members of a team will execute the decision more effectively (Chelladurai, 2006).
As mentioned, participative decision making also had its drawbacks. For starters, participative decisions are time consuming. Pooling together a group’s suggestions will take more time than having just one person making the final decision. Also, the leader may have more, or better, knowledge of the situation than the rest of group. It does not make sense to combine information that is not high-quality (Chelladurai, 1985). Lastly, if a group is not cohesive or well-integrated, the leader should be careful of engaging the group in participative decisions (Chelladurai, 2006). Conflicts among members may not lead to the best decisions for the group as a whole. The aforementioned advantages and disadvantages point to some benefits of autocratic decision making. It is important to note that autocratic decision style is functional only to the extent that the group comprehends and accepts the decisions the leader makes (Chelladurai, 2006).

Decision making can be more specific than just “participative” or “autocratic”. For instance, Vroom and Jago (1978; 1988) identified five procedures for involving members in decision making. In Autocratic decision making, the leader makes the decision based on the available information. Autocratic II (AII) is similar in that the leader makes the decision personally; however, the leader will gather information from members before he or she makes the final decision. The members may not necessarily know what the problem is and do not have a role in making the decision. The Consultative I (CI) decision style consists of the leader sharing the problem with relevant members on an individual basis. The leader keeps these ideas in mind and then makes the decision alone. Consultative II (CII) decisions occur when the leader shares the problem with all members, takes their view into account, and then makes the decision alone.
Lastly, the *Group II (GII)* decision style is by far the most participative. In this style, the leader shares the problem with the entire group and lets them generate alternative solutions and come to a decision. The leader ultimately is a chairperson in the process, helping the discussion run smoothly.

As suggested in previous models and scales, situational and personal attributes contribute to the leader’s decision style. Vroom and associates (1978, 1988) found that the influence of situational attributes on managers’ choices of decision styles was approximately four times the difference of personal factors. Similarly, Chelladurai and Arnott (1985) found the same trend in the athletic context. Ultimately, it must be emphasized that managers need to analyze a problem situation in terms of attributes in order to select the most appropriate decision style (Chelladurai, 2006).

**Important Findings of Sport Leadership Scales**

Differences in preferred coaching style have been found to be related to an athlete’s gender (Chelladurai & Saleh, 1980; Zhang & Smith, 1994). For example, Terry (1984) found that males prefer more Autocratic behavior than females do. This partially replicates Chelladurai & Saleh’s (1978) findings that male athletes prefer more autocratic and social support behavior, and female athletes prefer more democratic behavior. Eleven years later, Freeman and Lanning (1989) demonstrated how males and females are similar in social power motivation, which is an element of leadership. From this comparison alone, it is apparent that women have made great strides in the sporting world and changed their identities as athletes. More recently, Sherman, Fuller, and Speed’s (2000) study revealed widespread similarities in coaching preferences of dual-gender
sports. This confirms that time is closing the gap between differences in men and women athletes and their preferences for certain behaviors. Another finding of note having to do with gender is that of Riemer and Toon (2001). They found that it was not the athlete’s gender, but the coach’s gender, that accounted for the variance in behavior preferences. One explanation for the effect of the coach’s gender on social support behavior is that female athletes coached by a woman receive a reasonable level of social support. Because of this, they do not express a preference for it (Riemer & Toon, 2001).

The type of sport also has been found to impact leadership behavior. Riemer and Toon (2001), Riemer and Chelladurai (1995), and Chelladurai (1978) found that for athletes in more variable environments (i.e., team sports), training and instruction and positive feedback behaviors are most important. For those in less variable environments (i.e., individual sports), social support and democratic behaviors are equally as important as training and instruction and positive feedback behaviors.

Along with the type of sport, past research has revealed that the level of sport determined leadership behaviors and preference. For example, Jambor and Zhang (1997) found that the various coaching levels (junior high, high school, college) were significantly different when viewing leadership. High school coaches reported democratic leadership behavior to a significantly higher degree than did college coaches, while junior high coaches indicated training and instruction at a significantly less amount than did high school and college coaches (Jambor & Zhang, 1997). The differences found at the various coaching levels supports earlier research by Chelladurai (1990) who suggested that leadership is only significant within the context of the group. Sherman et al. (2000)
found that college level athletes had a comparatively low preference for social support. This finding contradicts Chelladurai and Saleh’s (1978) earlier work which revealed that a positive group atmosphere was important.

Differences also exist between the levels of collegiate athletics. For example, Riemer and Toon (2001) suggested that Division I athletes may view their athletic task as a job, and a necessary precursor to performing at the professional level. Therefore, these athletes may put more emphasis on task support because they know their skills must be at the highest level in order to move on professionally. Their Division II (and below) counterparts may understand that they do not have the required ability to make it at the professional level and therefore might be more concerned with the relational aspects of the coach-athlete dyad.

Cohesion

Team cohesion is a multidimensional process involving specific coaching behaviors as well as interactions among the coach, individual team members, and the overall sport context (Carron, 1982). Some social scientists deem cohesion the most important small group variable (Bollen & Hoyle, 1990)

Dimensions

Perceptions of cohesion can change under a variety of circumstances. Sometimes team cohesion may be vital in the achievement of group goals; however, team cohesion can also become a group goal itself (Martin, 2002). Regardless of the perception of cohesion, various aspects are essential to define and delineate. Since the study of cohesion decades ago, the need to distinguish between the group and individual has been
noted. Also discussed has been the distinction between the task oriented and socially oriented concerns of groups and their members. In the development of the Group Environment Questionnaire (GEQ), Carron, Widmeyer, and Brawley (1985), created a model describing the various components and/or dimensions of cohesion. They first divided their model into two major categories: group integration and individual attraction to group.

Group Integration (GI) represents the closeness, similarity, and bonding within the group as a whole. In other words, it is the unification of the group (Carron et al., 1985). Individual Attraction to Group (ATG) represents the composite of the individual members’ feelings about the group, their personal role involvement, and involvement with other group members. Both GI and ATG each have social and task aspects of their own. The social aspect “can be seen as a general orientation toward developing and maintaining social relationships within the group. The task aspect can be seen as a general orientation toward achieving the group’s goals and objectives” (Carron et al., 1985, p. 248). In other words, GI and ATG are each broken down into two categories, Task (T) and Social (S). Task cohesion reflects the degree to which members of a group work together to achieve common goals, while social cohesion reflects the degree to which members of a team like each other and enjoy each other’s company around non-task functions (Yusof & Vasuthevan, 2007). Ultimately, the GEQ has four dimensions in which cohesion is measured: GI-S, GI-T, ATG-T, and ATG-S.

The four dimensions are combinations of social, task, individual, and group contexts. Widmeyer, Brawley, and Carron (1985) define Attraction to Group – Task
(ATG-T) as one’s feelings about personal involvement with the group’s task, productivity, goals, and objectives. Individual Attraction to Group – Social (ATG-S) involves one’s feelings about personal involvement, acceptance, and social interaction with the group. The third dimension, Group Integration – Task (GI-T), includes one’s feelings about the similarity, closeness, and bonding within the team as a whole around the group’s task. Lastly, Group Integration – Social (GI-S), is defined as one’s feelings regarding the similarity, closeness, and bonding within the team as a whole around the group as a social unit. Figure 2.3 illustrates Carron et al.’s (1985) conceptual model of group cohesion.
Figure 2.3: Carron et al.’s conceptual model of group cohesion

**Antecedents & Relationships**

In 1982, Carron developed a model of cohesion that included four general antecedents to cohesion: environmental, personal, leadership, and team factors.

*Environmental Factors*

The Environmental factors Carron (1982) described include the availability of team sports, eligibility, geographical restrictions, threat from an outside force, and organizational restrictions. For instance, if an organization or governing body has a rule that states that teams can only practice three times a week for a total of six hours, a
team’s task cohesion, and even social cohesion, may suffer and these restrictions become a deterrent to cohesion. Size of the group and proximity of members have also been pointed to as antecedents of cohesion (Widmeyer et al., 1985). For example, if members of a tennis team practice on their own at different locations throughout the season and only come together to participate in matches, their cohesion will most likely suffer. Doubles partners task cohesion will suffer because they have not had the experience in playing together. Their social cohesion will not be as high as it could be because they are not spending the time together outside of their matches. While some of these environmental antecedents may be hard or impossible to control, they should be noted when examining the cohesion of a group.

One other environmental factor that has been the focus of much research is the type of sport team. Specifically, past researchers have focused on coactive or interactive teams, and their relationships with cohesion. For example, coacting teams, those that do not require task interaction between members, exhibited a lower level of cohesion than interacting teams (Carron & Chelladurai, 1981). Carron and Chelladurai also proposed that type of sport is a moderating variable in the relationship between cohesion and success. That is, they suggested that cohesion is associated with team success in interactive sports, but either has no effect or is associated with reduced team success in coacting sports. Conversely, Mullen and Copper (1994) and Carron, Colman and colleagues (2002) found no evidence that sport type moderates the cohesion-performance relationship. That is, the more cohesive a sport is, whether coactive or interactive, the better the performance will be.
Personal Factors

Carron (1982) listed characteristics such as individual orientation, individual differences, and personal satisfaction as the personal antecedents to cohesion. As personal satisfaction is high, cohesion is more likely to be high (Widmeyer et al., 1985). Also, gender is one of the most frequently studied personal factors. Research has pointed to gender differences in relation to cohesion. For example, female athletes have been found to be significantly more team oriented than male athletes (White, 1993). Similarly, Wrisberg and Draper (1988) found that cohesiveness is a relatively more common feature of female sports teams than of male teams. Gender also plays a role in more complex relationships. For instance, the cohesion-performance relationship has been found to be greater in female sports (Carron, Bray, et al., 2002). In other words, cohesion has more of an impact on performance in women’s teams than men’s teams.

Further personal factors named as suspected antecedents of cohesion are personalities, attitudes, and social backgrounds (Widmeyer et al., 1985). The closer these factors align, the more likely a team will experience a higher level of cohesion. For example, if one member of a team grew up on a rural farm and a second member of the same team grew up in an inner city, chances are that it would take longer for these teammates to mesh. A high level of cohesion in such circumstances would be more difficult to attain.

It should also be noted that starters perceived higher levels of attraction toward group-task cohesion than did nonstarters. In particular, starters had a greater sense of belonging in the task oriented activities of the team (Westre & Weiss, 1991). This could
be due to the fact that starters may be paid more attention in practice, during drills and scrimmages. The non-starters may feel they do not have as much to offer to the tasks, and ultimately, the goals of the team. Spink (1992) found similar results except that team success was a moderator. For instance, perceptions of cohesion were different in less successful teams (with starters holding the stronger perceptions) but not different in more successful teams.

Leadership Factors

Leadership, the third antecedent of cohesion, consists of factors such as leadership behavior, leadership style, and coach/athlete personalities (Carron, 1993; Westre & Weiss, 1991; Yukelson, 1984). Carron (1982) believed it is imperative that a coach develop and maintain team togetherness. For a group to be cohesive, members must be motivated and the group must have strong, positive leadership and coach-athlete compatibility regarding the group’s goals (Carron & Chelladurai, 1981). Yusof (2002) and Westre and Weiss (1991) suggested that personality and leadership behaviors of a coach can have an important effect upon athletes’ performances and satisfaction. This, in turn, affects the degree of team cohesiveness. In fact, Trail (2004) tested various models of the relationship between cohesion and leadership. He found that cohesion fully mediated the effects of leadership on outcomes.

A variety of research has been done on the relationship between leadership and cohesion. It was found that coaches who displayed more positive feedback, training and instruction, democratic behaviors, and social support, and displayed less autocratic behaviors, were able to develop greater task cohesion within their teams (Chu & Howe,
2000; Shields, Gardner, Bredemeier, & Bostrom, 1997; Westre & Weiss, 1991; Yusof & Vasuthevan, 2007). Yasuf and Vasuthevan (2007) also found that social cohesion was positively related to training and instruction, democratic behavior, social support, and positive feedback as well. Just as with task cohesion, social cohesion was found to be negatively related to autocratic behavior. More specifically, Robinson and Carron (1982) found that perceptions of autocratic leadership style in coaches contributed to athletes’ negative feelings regarding involvement, sense of belonging, and feelings of team closeness.

It should be noted that training and instruction behaviors are those task oriented responses of the coach who is trying to improve performance (Westre & Weiss, 1991). A democratic coaching style includes actions that encourage greater participation in team decisions, while an autocratic coaching style solely relies on the coach making decisions. Lastly, positive feedback is rewarding behavior that helps reinforce the athlete’s performance, while social support is the demonstration of concern and care for the team (Westre & Weiss, 1991).

Coaches can also impact the cohesion of their team in other ways. Since interactions between coaching staff and athletes lead to modeling behavior, athletes may adopt behaviors demonstrated by coaches (Martin, 2002). Therefore, it is possible that cohesion of the coaching staff will influence the cohesion of the team. In other words, if the coaching staff is cohesive, it is likely to provide a more pleasing environment for all involved, including athletes (Martin, 2002).
Team Factors

Team factors, such as desire for group success, group orientation, shared failures, group ability, and stability, make up the last antecedent as listed by Carron (1982). More specifically, interaction among group members, status consensus, clarity of group goals, likelihood of achieving group goals, acceptance of group goals, equal reward structure, reduced division of labor, clarity of members’ roles, and warmth of group atmosphere are considered to be antecedents of cohesion. (Widmeyer et al., 1985). For example, agreeableness and conscientiousness relate positively to task cohesion in teams (van Vienen & De Dreu, 2001); if members are aware of others’ feelings and contribute to the positive atmosphere, cohesion will likely be high.

Feelings of responsibilities for the group, perceptions of their team involvement, feelings of acceptance by the group, tendencies to self-disclose, feelings of satisfaction with social aspects of the group, and sacrifices in order to belong to the group are also considered to be antecedents of cohesion (Widmeyer et al., 1985). For example, van Vienen and De Dreu (2001) found that social cohesion is stronger when teams have high mean and minimum levels of extraversion and a high mean level of emotional stability. In other words, team members experience better relationships with each other if the emotional stability of most of the team is high, and if no single member is highly introverted.

Group success, or performance, has been viewed as a variable that can be seen as both an antecedent and consequence of cohesion; the direction of the relationship has come into question (Carron, Colman, et al., 2002). Interestingly, Carron and colleagues
(2002) found that there is no difference between the cohesion-to-performance and the performance-to-cohesion relationship. This being said, the labeling of success or performance as an antecedent has caused some variance in opinion among researchers. For example, several researchers (Carron, Bray, & Eys, 2002; Carron & Chelladurai, 1981; Mullen & Copper, 1994) found success and cohesion to have at least a moderately strong positive relationship. More specifically, Carron, Bray and colleagues (2002) revealed that the relationship between individual Attraction to Group – Task (ATG-T) and success was slightly stronger than between Group Integration – Task (GI-T). In other work, Carron, Colman, and colleagues (2002) found that both task and social cohesion are associated with performance. Conversely, Boone and Beitel (1997) found that success did not affect cohesion in a positive manner, but rather, both task and social cohesion remained stable during a successful season. This may indicate that there is indeed a relationship between success and cohesion, but that success does not cause or increase cohesion, nor does it indicate that cohesion is necessary for success.

Facilitators and Deterrents

Both facilitators and deterrents can be considered a type of antecedent. It is fair to say that deterrents are sometimes the polar opposite of facilitators. For example, when a researcher makes the claim that close proximity of members increases group cohesion, it can be assumed that when members do not spend time together and are not geographically close to one another, group cohesion may decrease. Specifically, deterrents, or detractors, are those antecedents which hinder, or decrease cohesion, while facilitators cause or directly enhance cohesion.
Most antecedents of cohesion are continuous in nature. In other words, varying levels are possible. In these cases, one end of the spectrum may increase team cohesion, while the other hinders it. These variables are difficult to label as definite deterrents or facilitators because it is hard to pinpoint at which level cohesion drops off. For example, if the roles of team members are somewhat clear, at what point does this impact cohesion? Will all roles have to be defined, assigned, and understood clearly before cohesion is high? What if roles are only understood by some members of the team? Will this hinder cohesion or will it not matter? It is these cases which are hard to clearly define.

Other antecedents have been studied in depth. Success (usually determined by record) is a suspected facilitator of cohesion, as previously noted. Therefore, not being successful, or losing, can be a suspected deterrent of cohesion. In fact, researchers have found that losing appears to affect the team’s level of cohesion on three of the four GEQ subscales in a negative manner over time (Boone & Beitel, 1997). The significant decreases were found on the ATG-T, GI-T, and GI-S subscales. Overall performance has been found to be a detractor as well. Although research of the relationship between cohesion and team performance has been found to be a predominantly positive one (Carron, Colman, et al., 2002; Slater & Sewell, 1994; Williams & Widmeyer, 1991), this relationship has not been consistent across all studies (Mullen & Copper, 1994). In other words, researchers such as Mullen and Copper have found that as performances increase, cohesion may decrease. In this sense, success could be a deterrent of cohesion. This could be due to variables such as jealousy that may emerge if one team member outperforms or
receives more accolades than another. In fact, jealousy itself has been found to have a negative relationship with cohesion (Kamphoff, Gill, & Huddleston, 2005).

Another widely studied variable includes leadership behavior. As previously noted, social support, democratic behavior, positive feedback, and training and instruction have facilitated both task and social cohesion (Yasuf and Vasuthevan, 2007). On the other hand, autocratic behavior has been found to be a deterrent of cohesion (Robinson and Carron, 1982).

Consequences

Widmeyer et al. (1985) list three categories of group cohesion. The first group of consequences affected by increased cohesion impacts the members. Specifically, self-esteem, sense of security, familiarity of with other members’ attitudes and feelings, acceptance and support of other group members, trust of other group members and conformity to group norms all have a positive relationship with cohesion. Also, loyalty to the group, ability to stand up under pressure, tendency toward behavior change, and effort to achieve group goals are listed as consequences that increase with increased group cohesion. Widmeyer and colleagues also list several consequences that have a negative correlation with group cohesion. These include anxiety, tendency to take advantage of other group members, absenteeism at group functions, and resistance to change. For example, as group cohesion increases, anxiety among members decreases.

Satisfaction is perhaps the most widely studied consequence that affects members. Researchers have found that as cohesion increases, member satisfaction also increases (Westre & Weiss, 1991; Trail, 2004). Trail (2004) reported that Group Integration of
Task (GI-T) cohesion had a large influence upon satisfaction and performance. Social cohesion within the group was also positively correlated with satisfaction, but not to the same extent as the group’s integration of the task (Trail, 2004).

Along the same lines, self-efficacy has been said to be affected by cohesion. Cohesion impacts how an athlete feels about him or herself and their current situation. Task measures of cohesion were found to be better predictors of collective efficacy than the social measures of cohesion. Athletes who perceived their teams as high in task cohesion tended to rate their teams higher in collective efficacy than athletes who perceived lower levels of task cohesion. (Kozub & McDonnell, 2000).

Other benefits of a cohesive group include improved mood (Terry, Carron, Pink, et al., 2000), increased self-esteem (Julian, Bishop, & Fielder, 1966), increased belief in the group’s ability to withstand disruption to group (Brawley, Carron, & Widmeyer, 1988), and a greater readiness of members to diffuse responsibility for failure through the group (Brawley, Carron, & Widmeyer, 1987). In these cases, group members are less likely to point fingers when a problem arises, and are willing to deem it a group issue and solve it that way. Also, Prapavessis and Carron (1996) and Eyes, Hardy, Carron, and Beauchamp (2003) found that athletes who expressed greater cohesion manifested as Individual Attractions to Group-Task (ATG-T) had a lower level of pre-competition cognitive anxiety. In other words, an athlete who felt his team was cohesive expressed lower levels of anxiety when it came to group-task activities, such as a game.

The second group of consequences as listed by Widmeyer et al. (1985) was made up of those that affect the processes of a group. With an increase in group cohesion, one
can expect an increase in intra-group communication, member participation, coordination of efforts, sacrifices for the group, persistence at group tasks, group conformity, group goal acceptance, role clarity, role acceptance, role performance, status consensus, and maintenance of group membership. A decrease in turnover rates can also be a consequence of increased group cohesion (Westre & Weiss, 1991).

Lastly, Widmeyer and colleagues stated that cohesion affects group products. As previously mentioned, researchers have been concerned with the relationship between cohesion and performance. In one of the first empirical studies of the relationship between cohesion and team performance, Martens and Peterson (1971) found that “there is a circular relationship between satisfaction, cohesiveness, and success. Those teams who are more cohesive are more successful; teams which are successful have greater satisfaction from participation than unsuccessful teams” (p. 58). Likewise, Carron, Brawley, and colleagues (2004) found that both task and social cohesion have an association with team success in coactive and interactive sports. Cohesion also affects athletes on an individual level. Bray and Whaley (2001) found that attraction to the group-social scale significantly predicted individual performances at the end of the season with high school athletes.

Although most see cohesion as a beneficial dynamic in a group environment, it has been known to cause some dysfunction in this same setting. Groupthink, or the group process that leads to mistakes in judgment and decision making (Janis, 1982), has been seen as the prime negative consequence of cohesion. Ten years prior, Janis (1972) asserted that “a high degree of group cohesiveness is conducive to a high frequency of
symptoms of groupthink, which, in turn, are conducive to a high frequency of defects in
decision-making” (p. 199). Park (1990) defined groupthink as the tendency for cohesive
groups to become so concerned about group solidarity that they fail to critically and
realistically evaluate their decisions and assumptions.

Specifically, those who suffer from groupthink tend to adopt the first adequate
solution that is offered, failing to consider a wide range of alternatives (Calloway &
Esser, 1984). This has been assumed to occur because of the desire to keep group
harmony and/or avoid any disagreements within the team. Hogg and Hains (1998) also
provided other examples of how groupthink can affect a highly cohesive unit. They
suggested that members have the illusion of invulnerability and an unquestioned belief in
the group’s inherent morality. They also stated that highly cohesive teams tend to have
stereotyped views of “enemy” leaders or teams as weak or stupid. Consequently,
groupthink affects the ability of team members to think clearly and objectively, hurting
the decision making process.

Development

Since cohesion has proven to play such an integral role in factors such as team
performance and satisfaction, coaches, administrators, and even athletes should be
concerned with how to improve it. Researchers have made several suggestions on how to
address team cohesion. For example, several researchers (Bloom, Stevens, & Wickwire,
2003; Kozub & McDonnell, 2000; Turman, 2003; Yukelson, 1997) found that the coach
plays a valuable role in the development of cohesion for his or her team. Turman’s (2003)
findings revealed several techniques and strategies identified by athletes that they felt
deterred (inequity, embarrassment, and ridicule) and promoted (bragging, sarcasm and teasing, motivational speeches, quality of the opponent, team prayer, and dedication) team cohesion. The one thing that separates these variables is the impact on interpersonal relationships developed between athletes. Inequity, embarrassment, and ridicule were described as isolating experiences with the coach, causing a separation between the athletes (Turman, 2003). On the other hand, bragging, sarcasm, and teasing were described as inclusive strategies which allowed athletes to develop interpersonal relationships with the coach and between teammates. According to Turman, “bragging up the ability of one athlete presented the model by which the coach wanted other team members to aspire” (p. 100).

Likewise, Ryska, Yin, Cooley, and Gin (1999) stated that both athlete integration and role development may represent means through which social and task cohesion, respectively, are developed. Additionally, Westre & Weiss (1991) suggested that coaches be sensitive to the feelings of the nonstarters concerning their sense of belonging to the team.

Similarly, Yukelson’s (1997) multifaceted approach included seven suggestions for ways that coaches can impact team functioning. Coaches should: (a) get to know athletes as individuals; (b) develop pride in group membership and a sense of team identity; (c) develop a comprehensive team goal setting program; (d) provide goal evaluations; (e) clarify role expectations; (f) set aside time for team meetings; and (g) establish a player counsel.
Others have suggested that cohesion can be reached through additional methods. For example, Bloom, Stevens, and Wickwire (2003) found that team building exercises in training programs increased cohesion and improved performance. They also explained that when team building is successful, team synergy is enhanced, and by enhancing team synergy, it will lead to increased team performance. Team building can be defined as the process of enhancing and improving the team atmosphere (Carron & Hausenblas, 1998), and has been proven to be a season-long process designed to improve cohesion (Bloom, et al., 2003).

Some team building techniques tend to be non-task and socially oriented (Carron, Colman, et al., 2002). These include personal growth experiences, team campouts, ropes and challenge courses (Meyer, 2000), and social get-togethers outside the sport context. Carron and colleagues suggested that the outcome of these exercises would be social cohesion. Other team building exercises appear to be more directly focused on the team’s tasks. Some examples are goal-setting exercises, communication exercises, and role clarity and acceptance exercises. It is predicted that the outcome of these activities would be task cohesion (Carron, Colman, et al., 2002).
CHAPTER 3

METHOD

This chapter outlines the procedures used to investigate the leadership behaviors of head coaches and team cohesion at the intercollegiate level. The chapter is presented in five sections which include: (a) Research Design; (b) Sample; (c) Instrumentation; (d) Data Collection; and (e) Data Analysis.

Research Design

Type of Research Conducted

Experimental (and Quasi-Experimental) research involves a study of the effect of the manipulation of one variable(s) on another variable (Ary, Jacobs, Razavieh, & Sorensen, 2006). This research also looks for a cause-effect relationship between variables (Gratton & Jones, 2004).

The current study is categorized as descriptive research. Descriptive research describes a particular phenomenon by focusing upon what is happening, rather than why it is happening. In other words, it measures the characteristics of the sample with no reference to issues of causality (Gratton & Jones, 2004). This area of research includes ex post facto, correlational, and survey research. Specifically, this study utilized survey research methods. In survey research, investigators ask questions about peoples’ beliefs,
opinions, characteristics, and behavior. It describes the distributions of variables in a large group (Ary et al, 2006). The primary goal is to use the findings from the sample to make inferences about the population.

Survey research can be completed using several techniques. Some of the more popular techniques include personal interviews, telephone interviews, mailed questionnaires, e-mail surveys, web-based surveys, and directly administered questionnaires (Ary et al, 2006). The current study utilized a mailed questionnaire, with a pre-notification email to the sample.

Survey research has several advantages. For starters, one benefit is the scope of the survey. It allows the researcher to reach a large population and collect greater amounts of data than would be possible with traditional survey methods (Ary et al., 2006). One may collect data from a geographically dispersed sample, without being present to do so (Ary, et al., 2006; Gratton & Jones, 2004; Roztocki, 2001).

Also, a well-designed questionnaire provides little opportunity to introduce bias into the results. This contrasts interviews or studies where the researcher is present at the time of data collection. It should be noted, however, that a poorly designed questionnaire can lead to bias in the data (Gratton & Jones, 2004).

A postal questionnaire allows for anonymity more easily than other methods (Gratton & Jones, 2004). This is true especially in the case of sensitive issues such as drug use, player violence, and cheating in sport.
Questionnaires also tend to provide structured quantitative data that is easily comparable. This data is generally straightforward to convert into tables and charts, and to analyze statistically (Gratton & Jones, 2004).

Survey research does have some disadvantages. For starters, most survey research aims for breadth, not depth. Unlike qualitative research, the researcher is unable to further elaborate on a specific item, question, or idea (Gratton & Jones, 2004).

Complex questions can lead to confusion among participants, especially since there is rarely opportunity for clarification (Gratton & Jones, 2004). If complex questions are required, the researcher should take the time to explain them with further instruction.

Not only is the response time of mailed questionnaire generally longer than other methods, response rates have been deemed as “notoriously poor” (Gratton & Jones, 2004, p. 118). Low response rates may have a serious effect on the reliability and generalizability of the study (Ary et al., 2006). Therefore, researchers should take every measure possible to improve response rates.

Survey Research Concerns

As in all research, some concerns exist when conducting survey research. According to Ary et al. (2006), measurement, framing, selection, sampling, and non-response errors are all concerns survey researchers must be aware of.

Sampling error is defined as the difference between a sample statistic and a population parameter (Ary et al., 2006). Sampling error can occur with both non-random and random samples. While sampling errors behave in a predictable manner (Ary et al., 2006), a certain amount of error is involved because even random samples can be
expected to vary from one another. Instead of researchers trying to determine the discrepancy between a sample statistic and the population parameter, inferential statistics is used to estimate the variability that could be expected in the statistics from several random samples drawn from the same population. Despite this, the best way for researchers to minimize sampling error is to increase the size of the sample (Dooley & Lindner, 2003).

Framing error is the discrepancy between the target population and the actual population from which the sample is drawn (Ary et al., 2006). For example, if the target population consists of collegiate athletes and the researcher decides to sample from a high school athletic team because of convenience, the results would not be generalizable to the intended population (collegiate athletes).

Selection error occurs when certain sampling units in the population have a greater or lesser chance of falling into the sample than the other sampling units (Ary et al., 2006). For example, let’s say the researcher wants to study all Division I football teams. However, he decides to randomly sample those teams who have nationally televised games. This eliminates all of the teams who do not have a game on TV, and accordingly eliminates the majority of non-BCS teams.

Measurement error refers to any err in the gathering of valid data. Examples of potential sources of measurement error include poor instructions or explanations by the researcher, confusing questions, inaccurately recorded answers, comprehension problems, and biased answers (Collins, 2003). A standardization of the collection tool and methods will help to ensure measurement error is minimized. This can be done by
checking for misunderstandings, incomplete concept coverage, statisficing, context effects, and inconsistent interpretations (Collins, 2003). This study addressed these issues by using a panel of experts to access the validity of the study (Ary et al., 2006).

Non-response error occurs when a sample subject does not complete and/or return the questionnaire (Dillman, 2000). Non-response can be a serious problem in survey research. Researchers generally agree that non-response can bias survey data, especially when the sample is non-random. Respondents tend to differ from non-respondents in characteristics such as education, motivation, intelligence, and interest in the topic of the survey (Ary et al., 2006). Richardson (2000) noted that in order to generalize the findings of the study, researchers must ensure results would not be different than if 100 percent response rate was achieved. The failure to appropriately address non-response error greatly limits the ability of the researcher to generalize their findings (Richardson, 2000; Miller & Smith, 1983). Therefore, it is of utmost importance to control for non-response by taking various measures and precautions.

Controlling for Non-Response error

In order to control for non-response error, it is essential to get as many responses back as possible. Strategies to do this include pre-notification, incentives, the visual appearance/simplicity of the instrument, and follow-up attempts (Cobanoglu & Cobanoglu, 2003; Couper et al., 2001; Kent & Turner, 2002). Once all appropriate follow-up procedures have been carried out, the researcher can use one of five options, as stated by Miller and Smith (1983), to control for the non-response error. The first method used by some, which is not recommended, is to ignore the non-respondents. This is not
the best option because the results would only be able to be generalized to the respondents. The four following methods will produce better results.

Researchers may compare respondents to the population. If the respondents’ characteristics are typical of the population’s, their similarity can be assumed and the researcher can generalize from respondents to the sample (the likeness between respondents and the population can be tested statistically). In other words, if the data for the respondents is similar of the population, it can be said that the respondents are a subpopulation of the total population and truly representative (Miller & Smith, 1983).

The second recommended way to control for non-response error is to compare respondents to non-respondents. This can be done by again examining the appropriate characteristics of both groups statistically. If they do not appear to be different, the results of the study can be generalized to the sample and population. If the two groups appear to be different, generalizations can only be made to the respondents (Miller & Smith, 1983).

Third, researchers can compare early to late respondents. Previous research has shown that late respondents are often similar to non-respondents (Newman, 1962). Therefore, researchers can estimate the replies of the non-respondents through the late respondents. Specifically, late respondents can be statistically compared to early respondents to validate generalizing from the respondents to the sample (Miller & Smith, 1983).

Last, and most empirically sound, a researcher may “double-dip” non-respondents (Miller & Smith, 1983). In order to do this, the researcher must take a random sample (10 to 20 percent) of the non-respondents. Miller and Smith (1983) suggested conducting
telephone or personal interviews with these non-respondents to gather data to statistically compare with the respondent’s data. If the data are similar, results can be generalized to the sample and/or population.

Sampling

Sampling Method

There are two categories of sampling methods: random and non-random. A random sample is selected by a chance procedure so that every member of the population has an equality probability of being selected (Ary et al., 2006). To get a random sample, a researcher must first define the population, list all members of the population, and finally select the sample by using a procedure where sheer chance determines which members on the list are drawn for the sample (Ary et al., 2006). Non-random sampling is all procedures other than random sampling. The various forms of both random and non-random sampling procedures are discussed below.

Types of Random Sampling

Stratified random sampling is used when a population consists of a number of subgroups that may differ in the characteristics being studied (Ary et al., 2006). The population is first divided into subgroups by relevant variables such as age, social status, or education. The researcher then randomly selects subjects from each subgroup (Ary et al., 2006). An advantage of stratified sampling is that it allows the researcher to also study the differences that may exist between the subgroups of a population. Also, when the population to be sampled is not homogeneous, stratified sampling may give a more representative sample than simple random sampling (Ary et al., 2006).
Cluster sampling randomly selects intact groups and then includes every element in each of the selected clusters in the sample. The unit chosen is not an individual, but a group of individuals who are naturally together (Ary et al., 2006). The benefit of using cluster samples is that each cluster is alike with respect to the characteristics relevant to the variables of the study (Ary et al., 2006).

Systematic sampling chooses every $k$th element of the population list for the sample. First the researcher must decide how many subjects he or she wants in the sample. By dividing the total number in the population by the number of subjects desired in the sample, the researcher can determine the sampling interval. Finally, the researcher selects the first member randomly from the first interval in the list ($k$), and then chooses every $k$th member of the population thereafter for the sample (Ary et al., 2006).

Types of Non-Random Sampling

Convenience sampling involves using available cases for a study. It chooses a sample based on availability, time, location, or ease of access. Experts regard convenience sampling as the weakest of all sampling types because there is no way of estimating error introduced by the procedures (Ary et al., 2006).

Purposive sampling occurs when the researcher chooses subjects judged to be representative of the population. The problem with this type of sampling technique is the extent to which judgments can be relied on to arrive at a typical sample (Ary et al., 2006). Therefore, the results of a study using purposive sampling may not be accurate. Despite these negatives, some researchers use this form of sampling because of its low cost and convenience (Ary et al., 2006).
Quota sampling determines the size of each relevant subgroup in the population and then non-randomly selects subjects to produce a sample in which the proportion of each subgroup is the same in the sample as it is in the population (Ary et al., 2006). The problem with quota sampling once again lies in the selection of individuals; there is no way to determine if they are actually representative of their given stratum.

Snowball sampling can be done by first locating the initial participants. These participants are asked to recommend further participants, who are then asked to recommend further participants themselves and so on, until the desired sample size is reached (Gratton & Jones, 2004). One possible advantage of using a snowball sample is that a higher level of trust may be established with all participants because of the relationship forged with previous known participants (Gratton & Jones, 2004).

This study used a combination of convenience and random sampling techniques, capturing both men’s and women’s NCAA Division III basketball programs. There are currently 403 men’s and 431 women’s basketball teams in Division III (NCAA.org, 2007). Seven coaches whom were known to researcher were contacted; the remaining coaches were randomly selected. The researcher ended the selection process when enough coaches agreed to participate. In all, 21 teams agreed to participate, with 14 returning the completed materials to the researcher.

Subject Description

A questionnaire regarding leadership and cohesion was sent to 21 men’s and women’s NCAA Division III basketball teams. Division III basketball teams were chosen due to the large number of teams of both genders (men’s teams = 403; women’s teams =
Basketball also is an interacting sport (those that require individuals to work together to achieve a common task or goals), where cohesion has been shown to be higher (Matheson et al., 1997). The head coach of each team completed a questionnaire regarding their perception of their own leadership style and team cohesion, while the members of his or her team completed a questionnaire regarding the perception of their head coach’s leadership style and team cohesion.

The questionnaires were kept confidential and anonymous, with institution and actual names being left off the instrument. Each questionnaire was coded enabling team members’ responses to be paired with their head coach’s response. Participant consent was acquired with the return of the questionnaire. Lastly, The Ohio State University granted IRB approval before contact was made with any participant of the study.

Instrumentation

Instrument and Scale Development

The 40-item Leadership Scale for Sport (LSS) developed by Chelladurai & Saleh (1980) has been used in many sport psychology studies and in a variety of sports (Riemer & Chelladurai, 1995). Both athletes and coaches indicate on a five point Likert scale how often their coach engages in a specific behavior. The response categories range from 1 to 5 (1=never, 2=seldom, 3=occasionally, 4=often, 5=always). The LSS consists of five dimensions of leader behaviors: democratic behavior (9 items), autocratic behavior (5 items), training and instruction (13 items), social support (8 items), and positive feedback (5 items).
In the past, the LSS has been used to test both coach and athlete perceptions of the coach’s leadership behavior, as well as the athlete preferences of leadership behavior. In this study, the LSS was used to measure athlete and coach perceptions of the head coach’s leadership behavior. Athletes were asked to think about how their head coach displays leadership behavior by rating the frequency of occurrence associated with each statement by circling the corresponding number in the five point scale. The coaches were asked to do the same regarding their own leadership behaviors. The instrument also included one satisfaction question for athletes, a seven item demographic section for coaches and a nine item demographic section for athletes.

Past research has found that the LSS has good internal reliability and validity (Chelladurai, 1984; Chelladurai & Riemer, 1998; Riemer & Chelladurai, 1995; Sherman, Fuller, & Speed, 2000). In Chelladurai & Saleh’s (1980) initial research on athlete perception of leadership behavior, internal consistency estimates ranged from .79 (Autocratic Behavior) to .93 (Training and Instruction). In both perceived and preferred versions of measurement, autocratic behavior measured low, especially on the preferred scale at .45. This trend has continued in later pieces of research and is thought to reflect the fact that two or three distinct facets of leadership behavior are included within the Autocratic Behavior scale (Chelladurai & Riemer, 1998). Chelladurai (1984) suggested this aspect should be viewed with caution. Therefore, to eliminate any inconsistencies, the autocratic items (five in all), were removed from the questionnaire. This left 35 LSS questions to be answered by coaches and athletes.
The second half of the questionnaire was comprised of the 18-item Group Environment Questionnaire (GEQ) developed by Carron et al. (1985) to measure team cohesion. The GEQ was designed as a general, rather than a situation specific, measure of cohesiveness in sports teams. Each team member is required to complete the 18 items on a nine point scale which is anchored at the two extremes by “strongly agree” and “strongly disagree”. The GEQ examines four constructs: Individual Attractions to the Group-Task (ATG-T; 4 items); Individual Attractions to the Group-Social (ATG-S; 5 items); Group Integration-Task (GI-T; 5 items); and Group Integration-Social (GI-S; 4 items).

The GEQ has been found to be a valid instrument (Carron et al., 1985; Carron, Brawley, & Widmeyer, 1998; Eys, Carron, Bray, & Brawley, 2007; Li & Harmer, 1996) despite disputing claims from other researchers. For example, Schutz, Eom, Smoll, and Smith (1994) found that the GEQ lacked factorial validity. They suggested that researchers should confirm the factor structure in their own data before computing any factor or scale scores. Regardless of this claim, the GEQ continues to be the most widely used measure of cohesion to examine teams in the sport environment (Eys et al., 2007).

As far as reliability, Carron and colleagues (1998) reported that the original Cronbach alpha values of the four scales were .75 (ATG-T), .64 (ATG-S), .70 (GI-T), and .76 (GI-S) and that similar and larger values have been reported for the GEQ in other studies. One potential reason for the variability in internal consistency could be due to the usage of both positively and negatively worded items (Eys et al., 2007). Barnette (2000) suggested that negatively worded items may not be considered the direct opposite of
positively worded items, and thus respondents may perceive the item in varying ways. He also stated that this is one of the major factors in the reduction of reliability and validity scores on instruments using mixed wording. Subsequently, Eys et al. (2007) studied whether or not the wording of the items impacted the internal consistency. By positively wording the negatively worded items, they found that their altered GEQ had significantly higher Cronbach alpha values.

Validity

Validity is the extent to which measurements actually reflect the phenomenon being studied (Gratton & Jones 2004). Several components should be considered when examining a research instrument’s validity. Face validity refers to the instrument’s appearance for its intended purpose. It is impossible to achieve the other components of validity without face validity. Content validity is the extent to which a set of items reflects a content domain (DeVellis, 2003). While face validity tends to focus on the surface level of appearance, content validity should be assessed from an expert’s point of view (Gratton & Jones, 2004). Predictive validity refers to the ability of the instrument to predict future behavior. For example, will a coach who scores highly on the autocratic behavior determinant of the LSS behave the same way a month down the road? The last component of validity is construct validity. As the most rigorous form of validity, construct validity is the extent to which an instrument measures what the researcher claims it does (Ary et al., 2006). In other words, it is the degree to which proposed theory/construct supports the interpretations of the test scores.
The creators of each instrument (the LSS and GEQ) took measures to ensure the validity of their respective scales. Chelladurai & Saleh (1980) established content validity of the LSS by utilizing a panel of experts to analyze each item. Carron et al. (1985) tested the content validity of the GEQ by doing three things. The first was reliance on a conceptual model and literature regarding cohesion. The second was obtained by using subjects as active agents in providing item content. Lastly, the researchers used a panel of experts to determine the adequacy of the content.

Threats to Internal and External Validity

Campbell and Stanley (1963) suggested that there are two general categories of validity in regards to conducting research: internal validity and external validity. Internal validity is the extent to which observed differences on the dependent variable are the result of the independent variable, not of some uncontrolled extraneous variable(s) (Ary et al., 2006). A research design must control for these extraneous variables in order to have internal validity. Campbell and Stanley (1963) identified eight extraneous variables that represent threats to the internal validity of a research study, specifically experimental research.

*History* refers to specific events or conditions other than the research design that may occur in the environment between the beginning and end of the study that may produce changes in the dependent variable (Ary et al., 2006). For example, if a student-athlete just had a fight with a teammate, it is likely his scores on the GEQ cohesion measure would be lower than his normally would have.
Maturation refers to changes that may occur within the subjects as a function of the passage of time (Ary et al., 2006). It can be difficult for researchers to assess the effects of treatments/experiments because of the maturation process that may occur in the subjects. Since this study was done as a one-time measurement, it was not be affected by maturation.

Testing effect occurs when taking a test affects the subjects’ performance when taking the test again, regardless of any treatment. For example, when a study utilizes a pre-test, subjects may do better on the post-test. When examining attitude and personality, a pre-test may sensitize the subjects so they think about issues raised and the person may consequently give different responses on the posttest (Ary et al., 2006). This study did not utilize a pretest-posttest design. Therefore, it is unlikely that the testing effect had an impact on the results.

Instrumentation threat occurs when there is a change in the instruments used during the study (Ary et al., 2006). In other words, a variance in the way the dependent variable was measured may bring about a change in the outcome instead of the treatment bringing about the change. Such alterations in procedure/instrumentation may involve the type of measuring instrument, scorers, using different observers, and difficulty. It is best to keep the same instrument and procedures to avoid any instrumentation threat.

Statistical regression refers to the tendency for subjects to score at the extremities (high or low) on a pretest to score closer to the mean on the second testing, regardless of treatment (Ary et al., 2006). Statistical regression is a threat when a subgroup is selected from a larger group based on the performance of the pretest measure. According to Ary et
al. (2006), regression inevitably occurs when the correlation between two variables is less than perfect.

Selection is a threat when there are differences between experimental and control groups before the application of the treatment (Ary et al., 2006). Random assignment should control for this bias because random groups differ only by chance. The selection bias is most likely to occur when the researcher uses intact groups. Selection bias should not be a threat in this study because it is not experimental in nature, and did not utilize a control or experimental group.

Mortality occurs when there is a differential loss of participants from comparison groups (Ary et al., 2006). A differential loss would result in differences in the outcome, regardless of treatment. Subjects usually don’t drop out unless the study goes on for a long time or unless the treatment is overly demanding. Once again, this threat should not be a concern in survey research.

Selection-maturation interaction is a problem when subjects are selected in a way that the experimental and control groups mature at different rates (Ary et al., 2006). This threat usually occurs in quasi-experimental designs using intact groups. In other words, the design’s effects are mistaken for the effect of the treatment.

Experimenter effect involves all unintentional effects that a researcher has on the study. Characteristics such as age, race, gender, and position can affect the outcome of the results (Ary et al., 2006). Internal validity is threatened if the researcher has expectations or personal biases that are obvious to the subjects. The best way to reduce or
eliminate experimenter bias is to standardize all procedures or have minimal contact with the participants.

The *Hawthorne effect* refers to a change in subject behavior due to the knowledge that they were participating in an experiment, not because of the treatment (Ary et al., 2006).

The last threat to internal validity is *diffusion*. Diffusion occurs when participants communicate information about the treatment to other participants, which in turn, influences behavior on the dependent variable (Ary et al., 2006). Usually this occurs when the experimental group communicates with people in the control group.

External validity refers to the extent to which the findings of a study can be generalized to other subjects, other settings, and/or other operational definitions of the variables (Ary et al., 2006). To ensure the external validity (or generalizability) of research findings to the target population, the researcher must prove the results of the survey would have been the same even if a 100 percent response rate had been achieved (Richardson, 2000). Generalization may be affected by variations in subjects, settings, and treatments. Several threats exist to external validity. Along with sampling, frame, selection, and non-response error (Lindner, Murphy, and Briers, 2001), the following are specific threats to external validity.

*Selection-treatment interaction* occurs when there is interaction between subject characteristics and treatment (Ary et al., 2006). An effect found with certain subjects may not hold true with different subjects. For example, a college basketball team may produce different results in the study than if a high school basketball team had participated. Using
volunteers also presents an external validity problem because they are known to have certain characteristics that may not be typical of the population to which generalizations are being made (Ary et al., 2006).

*Setting-treatment interaction* refers to any interaction of the treatment with the experimental setting that limits that generalizability of the results (Ary et al., 2006).

*Pretest-treatment interaction* occurs when a pretest changes the subjects’ sensitivity or responsiveness to the experimental variable and thus makes the results ungeneralizable to those who were not pre-tested (Ary et al., 2006). Therefore, since the population was not pre-tested it cannot be generalized to.

*Subject effects* are the attitudes and feelings of participants that develop during a study that may influence the generalizability of the findings to other settings (Ary et al., 2006). The Hawthorne effect (described earlier) can also be considered a subject effect in that participants think and/or behave differently because of the knowledge of the experiment, and therefore cannot be generalized.

*Experimenter effects* are characteristics unique to a specific experimenter that may limit generalizability to situations with a different experimenter. An experimenter may consciously or unconsciously provide cues to subjects that influence their performance (Ary et al., 2006). The presence of observers during an experiment may also alter the normal responses of the participants.

The *novelty effect* refers to the excitement and enthusiasm generated by a new technique, instructional method, or idea (Ary et al., 2006). In a classroom setting, a new
teaching method may be successful because of the newness, not because of its actual technique.

*Field Test*

A field test is a process of testing a research instrument with a small number of persons in order to identify ambiguities and other concerns before the research is conducted (Ary et al., 2006). The main difference between a field test and panel of experts is that the field test subjects fill out the questionnaire as if they were in the study. Field tests help establish face validity by assuring that the instructions are clear, item interpretations are alike, and the length of the questionnaire is not too long. It is also important for the field testers to provide information about their comfort level and motivation to complete the questionnaire. The reviews of the instrument will lead to a refinement of the instrument prior to sending the questionnaires to the sample.

This instrument was field tested by a sport management undergraduate class at a large, Midwestern University. An explanation of the study was given to the class prior to the administration of the questionnaire. Upon completion, the students returned their questionnaire to the administrator. The researcher then refined the instrument based on the recommendations.

*Reliability*

Reliability is defined as the extent to which findings would be similar if the research were to be repeated, with all other things equal (Gratton & Jones, 2004). In other words, reliability refers to the consistency of the results obtained. It also can be said to be
the extent to which scores are free of random error (Ary et al., 2006). The three sources of random error are discussed below.

First, the individual being measured may have fluctuations in motivation, interest, level of fatigue, physical health, anxiety, and other mental and emotional factors (Ary et al., 2006). As these factors change from one measurement to the next, they result in inconsistent scores. The second source of random error may come from the administration of the instrument. If a person is inexperienced in administering and/or scoring a test, they may depart from standardized procedures. The error in administration may cause subjectivity and vague scoring instructions, which in turn, lowers consistency. Finally, the instrument itself may be a source of random error.

There are several kinds of reliability. Three major types of reliability are inter-observer reliability, test-retest reliability, and internal consistency reliability (Ary et al., 2006; Gratton & Jones, 2004). For this study, the most essential type of reliability is internal consistency reliability. This refers to the extent to which each question within a measure is actually measuring the same phenomenon (Gratton & Jones, 2004). Cronbach’s alpha coefficient is one of the most commonly used indicators of internal consistency. Ideally, the coefficient should measure above .7 (Pallant, 2005).

As noted, this study utilized an instrument that includes two existing reliable scales. For the LSS, as found by Chelladurai & Saleh (1980), the internal consistency estimates (Cronbach’s alpha) for the five subscales ranged from .79 (autocratic behavior) to .93 (training and instruction) for a mean of .87 in the “leadership behavior perceived” version of the questionnaire. In developing the GEQ, Carron et al. (1985) performed a
series of three studies to ensure that each item only represented one construct and to add or delete any items from the scale. By going through this process, the researchers went from 53 items to 18 to end up with a reliable instrument: Individual Attractions to the Group-Task had a reliability coefficient of $r = .75$; Individual Attractions to the Group-Social, $r = .64$; Group Integration-Task, $r = .70$; and Group Integration-Social, $r = .76$.

**Independent and Dependent Variables**

Independent variables are those that are causes or antecedents to dependent variables. In other words, they may affect the dependent variables (Gratton & Jones, 2004). In non-experimental studies, a variable that precedes another variable in time is an independent variable (Ary et al., 2006). There are several types of independent variables. Some independent variables are manipulated, as in experimental research. These are called active independent variables. Another category of independent variables are those that can be manipulated, but are not. These are often found in ex post facto research. Lastly, attribute independent variables are characteristics that a subject has before the study begins (Ary et al., 2006). Examples include age, gender, socio-economic status, and intelligence.

The dependent variable is the observed and measured variable. It may also be called the outcome or effect variable (Ary et al., 2006). In other words, dependent variables are those that can be explained by the effect of the independent variable (Gratton & Jones, 2004). For example, if level of team cohesion is the independent variable, level of performance may be a dependent variable.
Other forms of variables may have an impact on the dependent variable or outcome. Intervening variables may imply that there is another relationship involving a different variable (Gratton & Jones, 2004). Also, extraneous variables are those that are not related to the study but may also contribute to the dependent variable or outcome (Ary et al., 2006). Lastly, confounding or contaminating variables are those that mix with the independent variable(s) in such a way that their effects cannot be separated (Ary et al., 2006). It is important that researchers identify and account for all potential variables that could interfere with their studies in order to keep their results valid and generalizable.

The independent variables in this study were the five dimensions named by Chelladurai and Saleh (1980) in their Leadership Scale for Sport (LSS). The LSS uses Training and Instruction, Democratic Behavior, Autocratic Behavior, Social Support, and Positive Feedback dimensions (or variables) to assess coaching leadership styles. This study examined four of the five (omitting autocratic) dimensions of both the athletes’ and head coach’s perceptions of leadership. The differential scores between athlete and head coach’s perceptions were utilized as an independent variable. Gender of the athletes was also used as an independent variable.

The main dependent variable in this study was the perceived level of team cohesion. Carron et al. (1985)’s study indicated that each group member’s perception of cohesion can be measured by evaluating four constructs. Their Group Environment Questionnaire (GEQ) uses Group Integration-Task, Group Integration-Social, Individual Attractions to the Group-Task, and Individual Attractions to the Group-Social to
determine perceived cohesiveness in sport groups. This study hypothesized that type of leadership behavior will have an effect on perceived team cohesion. Success (win-loss record) and satisfaction were also used as dependent variables, specifically in relation to cohesion level and perceived leadership behaviors. Satisfaction was determined by one item (“I am satisfied with my experience as a whole”), on a 1 (strongly disagree) to 9 (strongly agree) scale, that was answered by all athletes. Success was determined by the teams’ overall won-loss percentage for the season.

Data Collection

The first contact with the coach participants were by way of email, introducing the study. The email also explained that in two weeks, a packet with both coach and athlete questionnaires would arrive if they agreed to participate. The packets were sent out to the agreeing coaches over a three week period. Each packet contained a cover letter, instructions for the team captain, a questionnaire for the head coach (containing the self-described version of the LSS and demographic items), and the appropriate number of athlete questionnaires (containing the perceived version of the LSS, the GEQ, and demographic items).

The coaches were instructed to give the athlete questionnaires to a team captain, so that they could be distributed and completed in full anonymity. The captains distributed the athlete questionnaire and an envelope to each team member. Upon completion, the athletes sealed their questionnaire in the envelope provided and returned it to the team captain. The team captain put the sealed envelopes into a larger envelope, and dropped it in the mail. The head coach completed his or her questionnaire and sent it
back to the researcher in a separate, provided envelope. After approximately ten days, a reminder email was sent to the coaches who had not yet responded, and a thank you email to those who had.

A total of 14 different programs returned their questionnaires. One program only returned two athlete questionnaires along with the head coach’s and was therefore removed from the study. The remaining 13 sets of data were put through a series of analyses to determine reliabilities and to answer all research questions.

Data Analysis

Data received from the completed questionnaires was analyzed using the computer software Statistical Package for the Social Sciences (SPSS) version 16.0. Prior to analyzing the data, the researcher checked the data for accuracy in responses and missing items. Descriptive statistics (means, ranges and standard deviations) and frequency distributions were calculated for variables and internal reliability scores (Cronbach’s alphas) were calculated using SPSS and were reported for all facets of the questionnaire.

For research question #1, a one-sample $t$-test was utilized to determine any significant difference in the head coach’s and athletes’ perceptions of leadership behavior. The average scores for each sub-scale (Training and Instruction, Positive Feedback, Democratic Behavior, and Social Support) were compared between players and their head coach, with the difference scores (coach perception minus athlete perception) used.
For the remaining ten research questions, only athlete scores were used for analysis. Research question #2 was addressed by using four separate multiple linear regression analyses to determine if a significant relationship existed between the athletes’ perceived leadership style of their head coach and team cohesion. Multiple regression explores the relationship between one continuous dependent variable and a number of independent variables or predictors (Pallant, 2005).

Research questions #3, 4, 5 and 6 utilized separate multiple regressions to determine if there was a significant relationship between leadership behaviors and success, cohesion and success, leadership and satisfaction, and cohesion and satisfaction, respectively.

Research questions #7, 8, 9, and 10 each used multivariate analyses of variance (MANOVAs) to determine if there were significant differences of gender on perceived leadership style, gender on cohesion, player status (starters versus non-starters) on cohesion, and player status on perceived leadership style, respectively.

Research question #11 used a multiple linear regression to determine if there was a significant difference in the relationships between leadership behaviors and cohesion based on gender.

Lastly, respondents had the opportunity to write comments concerning their experiences and their perceptions of head coach leadership and team cohesion. Responses are listed in Appendix H.
CHAPTER 4

RESULTS

This chapter contains the results of the quantitative data analysis procedures conducted for this study. The quantitative data were collected using the Leadership Scale for Sport (LSS) and the Group Environment Questionnaire (GEQ). The LSS consists of items that measure perceptions of head coaches’ leadership behaviors, while the GEQ contains items that measure cohesiveness in sports teams. This instrument included these two scales, as well as an item measuring overall athlete satisfaction, and one measuring team success. Demographic items were also included and will be discussed later in this chapter.

The results of this study are presented in five sections which include: (a) Study Sample; (b) Subgroup Differences; (c) Reliability Analyses; (d) Correlations; and (e) Research Questions Analyses.

Study Sample

Upon receiving a verbal agreement, 21 NCAA Division III basketball coaches were sent packets containing a cover letter, instructions, pre-stamped return envelopes, and questionnaires for both themselves and their athletes. A total of 14 of the 21 returned the questionnaires, one being unusable. In total, 13 head coaches and 145 athletes
responded with usable questionnaires. The head coaches were asked to provide the following demographic information: (a) age; (b) gender; (c) number of years they had been coaching; (d) number of years they had been a head coach; (e) number of years at their current institution; (f) number of assistant coaches they had on their staff; and (g) number of athletes they had on their team. The athletes were asked to provide the following demographic information: (a) age; (b) gender; (c) year in school; (d) playing status (starter, non-starter, or practice player); (e) playing time (0-5 minutes, 6-15 minutes, 16-30 minutes, or 30-40 minutes); (f) if they were a team captain; (g) points per game; (h) rebounds per game; and (i) assists per game.

Of the 13 coaches, 10 (76.9%) were male, while 3 (23.1%) were female. The mean age of the coaches who responded was 38.9 years ($SD = 11.52$). The coaches in this group had been coaching for an average of 12.5 years ($SD = 5.24$) and had been head coaches for 6.2 years ($SD = 4.63$). As far as the amount of time at their current school, the coaches averaged 6.3 years ($SD = 5.27$). The coaches also averaged 1.9 assistants ($SD = .95$) and 13.8 athletes ($SD = 3.75$) in their programs. Head coach demographic information is further explained in Table 4.1.

The athlete respondents consisted of 56 males (38.6%) and 89 (61.4%) female. The mean age of the athlete respondents was 19.9 years ($SD = 1.42$). Of the 145 athletes responding, 47 (32.4%) were freshmen, 33 (22.8%) were sophomores, 40 (27.6%) were juniors, and 25 (17.2%) were seniors. As on any team, athletes have varying roles. In this study, 24 (16.6%) reported being team captains, while 121 (83.4%) reported they did not hold this title. The sample was also made up of 55 (37.9%) starters, 88 (60.7%) non-
starters, and 1 (.7%) practice player (one athlete chose not to report their playing status).

For playing time, 33 (22.8%) athletes played 0-5 minutes per game, 34 (23.4%) played 6-15 minutes per game, 54 (37.2%) played 16-30 minutes per game, and 24 (16.6%) played 30-40 minutes per game. The athletes self-reported their point, rebound, and assist averages; the means were 5.8 (SD = 4.46), 3.3 (SD = 2.47), and 1.8 (SD = 1.30), respectively. The athlete demographic information is further expanded in Table 4.2. In addition, means and standard deviations for each of the scales and outcome variables are reported in Table 4.3.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>10</td>
<td>76.9</td>
</tr>
<tr>
<td>Female</td>
<td>3</td>
<td>23.1</td>
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<table>
<thead>
<tr>
<th>Variable</th>
<th>Min</th>
<th>Max</th>
<th>M (SD)</th>
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<td>Age</td>
<td>26</td>
<td>64</td>
<td>38.92 (11.52)</td>
</tr>
<tr>
<td>Number of Years in Coaching</td>
<td>4</td>
<td>21</td>
<td>12.46 (5.24)</td>
</tr>
<tr>
<td>Number of Years as Head Coach</td>
<td>1</td>
<td>18</td>
<td>6.15 (4.63)</td>
</tr>
<tr>
<td>Number of Years at School</td>
<td>1</td>
<td>18</td>
<td>6.31 (5.27)</td>
</tr>
<tr>
<td>Number of Assistants on Staff</td>
<td>0</td>
<td>3</td>
<td>1.92 (.95)</td>
</tr>
<tr>
<td>Number of Athletes on Team</td>
<td>10</td>
<td>25</td>
<td>13.77 (3.75)</td>
</tr>
</tbody>
</table>

Table 4.1: Frequency distribution and means of head coach demographic variables
<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>56</td>
<td>38.6</td>
</tr>
<tr>
<td>Female</td>
<td>89</td>
<td>61.4</td>
</tr>
<tr>
<td>Team Captain</td>
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<td></td>
</tr>
<tr>
<td>Yes</td>
<td>24</td>
<td>16.6</td>
</tr>
<tr>
<td>No</td>
<td>121</td>
<td>83.4</td>
</tr>
<tr>
<td>Player Status</td>
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<tr>
<td>Starter</td>
<td>55</td>
<td>37.9</td>
</tr>
<tr>
<td>Non-starter</td>
<td>88</td>
<td>60.7</td>
</tr>
<tr>
<td>Practice player</td>
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<td>0.7</td>
</tr>
<tr>
<td>Year in School</td>
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<td></td>
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<tr>
<td>Freshmen</td>
<td>47</td>
<td>32.4</td>
</tr>
<tr>
<td>Sophomore</td>
<td>33</td>
<td>22.8</td>
</tr>
<tr>
<td>Junior</td>
<td>40</td>
<td>27.6</td>
</tr>
<tr>
<td>Senior</td>
<td>25</td>
<td>17.2</td>
</tr>
<tr>
<td>Playing Time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 - 5 minutes</td>
<td>33</td>
<td>22.8</td>
</tr>
<tr>
<td>6 - 15 minutes</td>
<td>34</td>
<td>23.4</td>
</tr>
<tr>
<td>16 - 30 minutes</td>
<td>54</td>
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<tr>
<td>30 - 40 minutes</td>
<td>24</td>
<td>16.6</td>
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<table>
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<tr>
<th></th>
<th>Min</th>
<th>Max</th>
<th>M (SD)</th>
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</thead>
<tbody>
<tr>
<td>Age</td>
<td>18</td>
<td>27</td>
<td>19.86 (1.42)</td>
</tr>
<tr>
<td>Points per game</td>
<td>0</td>
<td>21</td>
<td>5.80 (4.46)</td>
</tr>
<tr>
<td>Rebounds per game</td>
<td>0</td>
<td>11</td>
<td>3.33 (2.47)</td>
</tr>
<tr>
<td>Assists per game</td>
<td>0</td>
<td>7</td>
<td>1.82 (1.30)</td>
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</table>

Table 4.2: Frequency distribution and means of athlete demographic variables
<table>
<thead>
<tr>
<th>Scale / Outcome</th>
<th>$M$</th>
<th>$SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training and Instruction$^a$</td>
<td>3.91</td>
<td>.68</td>
</tr>
<tr>
<td>Social Support$^a$</td>
<td>3.45</td>
<td>.71</td>
</tr>
<tr>
<td>Democratic Behavior$^a$</td>
<td>3.08</td>
<td>.71</td>
</tr>
<tr>
<td>Positive Feedback$^a$</td>
<td>3.71</td>
<td>.86</td>
</tr>
<tr>
<td>Attraction to Group – Social$^b$</td>
<td>7.33</td>
<td>1.50</td>
</tr>
<tr>
<td>Attraction to Group – Task$^b$</td>
<td>6.41</td>
<td>1.83</td>
</tr>
<tr>
<td>Group Integration – Task$^b$</td>
<td>6.54</td>
<td>1.42</td>
</tr>
<tr>
<td>Group Integration – Social$^b$</td>
<td>6.8</td>
<td>1.59</td>
</tr>
<tr>
<td>Satisfaction$^c$</td>
<td>6.91</td>
<td>2.00</td>
</tr>
<tr>
<td>Success$^d$</td>
<td>.50</td>
<td>.21</td>
</tr>
</tbody>
</table>

$^a$ - Leadership dimension; 5-point scale ($1 = “strongly disagree”, 5 = “strongly agree”)

$^b$ - Cohesion dimension; 9-point scale ($1 = “strongly disagree”, 9 = “strongly agree”)

$^c$ - Single-item on 9-point scale ($1 = “strongly disagree”, 9 = “strongly agree”)

$^d$ - Team winning percentage

$N = 145$

Table 4.3: Descriptive statistics for athlete scales
Subgroup Differences

Differences among athlete respondents on the following demographic variables were analyzed using three grouping variables (i.e., gender and year in school) for this study: (a) age; (b) points per game; (c) rebounds per game; and (d) assists per game.

Through independent sample $t$-tests, it was determined that there were no significant differences between athlete gender and any of the demographic variables. On the other hand, year in school was found to have a significant difference on points per game, $F(3, 140) = 9.73, p < .001$, partial $\eta^2 = .18$. Post-hoc tests (Bonferroni) showed the only significance was found between freshmen ($M = 3.1, SD = 2.95$) and the other three classes: sophomores ($M = 7.1, SD = 4.03, p < .001$), juniors ($M = 6.9, SD = 4.78, p < .001$), and seniors ($M = 7.3, SD = 4.74, p < .001$). Year in school was also found to have a significant difference on rebounds per game, $F(3, 138) = 9.63, p < .001$, partial $\eta^2 = .18$. Post-hoc tests once again showed the only significant difference was found between freshmen ($M = .19, SD = 2.18$) and sophomores ($M = 3.91, SD = 2.45, p = .001$), juniors ($M = 3.50, SD = 1.97, p = .011$), and seniors ($M = 4.72, SD = 2.57, p < .001$). Lastly, year in school showed a significant difference on assists per game, $F(3, 137) = 3.22, p = .025$, partial $\eta^2 = .18$. The only significant difference was between freshmen ($M = 1.32, SD = 1.42$) and seniors ($M = 2.20, SD = 1.38, p = .042$).

Reliability Analysis

In this study, reliabilities for the four utilized dimensions of Chelladurai and Saleh’s (1980) Leadership Scale for Sport (LSS) ranged from .79 for Social Support to
.92 for Positive Feedback. Training and Instruction ($\alpha = .91$) and Democratic Behavior ($\alpha = .84$) also were found to be satisfactory.

The Group Environment Questionnaire (GEQ), developed by Widmeyer, Brawley, and Carron (1985), has had low reliability estimates in past research (Bray & Whaley, 2001; Carron et al., 2004; Eys et al., 2007). In this study, the four dimensions measured as follows: Attraction to Group – Social ($\alpha = .76$); Attraction to Group – Task ($\alpha = .75$); Group Integration – Task ($\alpha = .78$); and Group Integration – Social ($\alpha = .79$). The internal consistencies of all the scales fall within Nunnally’s (1978) level of acceptability ($\alpha = .70$) for exploratory or early stage research. Therefore, based on the exploratory nature of this study, the researcher proceeded without refinement to any of the scales.

**Correlations**

Table 4.4 illustrates the correlations that were performed on all variables in the study. The relationships between satisfaction and all leadership and cohesion dimensions was significant ($p < .01$) and positive in nature. The strongest relationship was with Group Integration – Task ($r = .599$), followed by Attraction to Group – Task ($r = .566$), and Attraction to Group – Social ($r = .560$) - all cohesion measures.

Another finding of note was the significant, negative correlations that success had with Social Support ($r = -.169$, $p < .05$) and Democratic Behavior ($r = -.264$, $p < .01$). This indicates that the more success a team had, the less Social Support and Democratic Behaviors were perceived to be demonstrated by their head coach. On the other hand, success had a significant positive correlation with Group Integration – Task ($r = .408$, $p$
< .01), Group Integration – Social ($r = .298, p < .01$), Attraction to Group – Task ($r = .274, p < .01$), and Attraction to Group – Social ($r = .175, p < .05$).

The four leadership dimensions (Training and Instruction, Social Support, Democratic Behavior, Positive Feedback) and four cohesion dimensions (Attraction to Group – Social, Attraction to Group – Task, Group Integration – Task, Group Integration – Social) were found to have 14 of a possible 16 correlations significant and positive. Attraction to Group – Social’s correlation with Social Support had the weakest significant correlation ($r = .181, p < .05$), while Attraction to Group – Task and Training and Instruction had the strongest correlation ($r = .553, p < .01$). The two relationships that were not significant were Democratic Behavior and Social Support with Group Integration – Social.

Lastly, and perhaps most important, were the findings regarding the inter-dimension correlations. The correlations between the leadership variables were all positive and strong. The smallest of the correlations was between Social Support and Positive Feedback ($r = .591, p < .01$), and the largest between Social Support and Training and Instruction ($r = .703, p < .01$). The coefficients of determination were calculated for each relationship, yielding a 34.9% and 49.4% of shared variances, respectively. The six correlations between the cohesion variables were all positive and rather large, ranging from $r = .469$ (Attraction to Group – Task and Group Integration – Social) to $r = .683$ (Attraction to Group – Social and Group Integration – Social) at the $p < .01$ level. The shared variances were moderately high to high, ranging from 22.0% to 46.6%, respectively. These high shared variances indicate that there was a large overlap

84
(33.9% to 49.4% and 22.0% to 46.6%) between the dimensions in their respective scales.

In comparison with previous research, these numbers seem to be very similar (Bray & Whaley, 2001; Eys et al., 2007; Kozub & McDonnell, 2000; Shields et al., 1997).
Table 4.4: Correlations between all variables

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

Note. (T&I – Training and Instruction; SS – Social Support; DB – Democratic Behavior; PF – Positive Feedback; ATG-S – Attraction to Group – Social; ATG-T – Attraction to Group – Task; GI-T – Group Integration – Task; GI-S – Group Integration – Social)
Research Question Analysis

Research Question 1

The first research question asked if there was a significant difference in head coach’s perception of leadership behavior and athlete perception of leadership behavior. Difference scores were used to compare head coaches to each of their respective athletes. In this case, the average athlete score for each of the four dimensions was subtracted from their head coach’s scores. A one-sample $t$-test (with the test value set at 0) was used to determine any significant differences.

The results indicated significant differences on three of the four leadership dimensions: Training and Instruction ($M = .34; SD = .78$), $t(144) = 5.20, p < .001$; Social Support ($M = .27, SD = .89$), $t(144) = 3.68, p < .001$; and Positive Feedback ($M = .54; SD = .99$), $t(144) = 6.64, p < .001$. Since the athletes’ scores were subtracted from the coaches’ and because the means were positive numbers, the head coaches scored their behaviors higher than their athletes did in all categories found to be significant. Democratic behavior, on the other hand, did not show a significant difference between the two groups ($M = -.09; SD = .93$), $t(144) = -1.18, p = .239$.

Research Question 2

Four separate multiple linear regressions were conducted to determine whether or not there was a significant relationship between the athletes’ perceived leadership styles of their coach and team cohesion. Multiple linear regression was used (instead of multivariate multiple linear regression) because the sample size was only 145.
leadership variables had a significant relationship with each of the four cohesion variables.

The first regression revealed that the leadership dimensions accounted for 13.7% of the variance in Attraction to Group – Social, \( F(4, 140) = 6.74, p < .001 \). Positive Feedback made a significant and unique contribution to the variance, \( t(145) = 2.47, p = .015 \). The leadership dimensions accounted for 32.1% of the variance in Attraction to Group – Task, \( F(4, 140) = 17.99, p < .001 \). Training and Instruction, \( t(145) = 4.61, p < .001 \) and Positive Feedback, \( t(145) = 2.15, p = .034 \) made significant and unique contributions to the variance. Leadership dimensions also accounted for 25.9% of the variance in Group Integration – Task, \( F(4, 140) = 13.60, p < .001 \). Training and Instruction, \( t(145) = .505, p < .001 \) and Social Support, \( t(145) = -2.37, p = .019 \) made significant and unique contributions to the variance. Lastly, the leadership dimensions accounted for 7.2% of the variance in Group Integration – Social, \( F(4, 140) = 3.81, p = .006 \). Training and Instruction, \( t(145) = 2.34, p = .021 \) and Social Support, \( t(145) = -2.77, p = .006 \) made significant and unique contributions to the variance. Further data is provided in Table 4.5.
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<th>$B$</th>
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</table>

*p < .05  **p < .01  ***p < .001

Note. T&I = Training and Instruction; SS = Social Support; DB = Democratic Behavior; PF = Positive Feedback

Table 4.5: Regression of perceived leadership behaviors and cohesion variables
**Research Question 3**

Research question three asked if there was a significant relationship between perceived leadership behaviors and success. In this case, success was determined by the won-loss percentage of the athletes’ respective teams. A multiple linear regression revealed that the four leadership dimensions accounted for 10.6% of the variance in success, $F(4, 140) = 5.26, p = .001$. Democratic Behavior ($B = -.12, SE = .03; p = .001$) made a significant and unique contribution to the variance, while Training and Instruction, Social Support, and Positive Feedback did not. Further data is provided in Table 4.6.

<table>
<thead>
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<th>Dependent Variable Entered</th>
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<th>Beta</th>
<th>$B$</th>
<th>$SE$</th>
<th>$t$</th>
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</thead>
<tbody>
<tr>
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<td>.073</td>
<td>.042</td>
<td>1.744</td>
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<tr>
<td>SS</td>
<td>.131</td>
<td>.106</td>
<td>5.259**</td>
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<td>-.12</td>
<td>.034</td>
<td>-3.554**</td>
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</table>

**Note.** T&I = Training and Instruction; SS = Social Support; DB = Democratic Behavior; PF = Positive Feedback

**Table 4.6: Regression of team success on leadership variables**
Research Question 4

The fourth research question explored the relationship between the four cohesion dimensions and success. A multiple linear regression revealed that the cohesion dimensions combined accounted for 15.8% of the variance in success $F(4, 140) = 7.75, p < .001$. Only one of the four dimensions, Group Integration – Task, was found to make a unique significant contribution to the variance ($B = .06, SE = .02; p = .002$). Further data is provided in Table 4.7.

<table>
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<tr>
<th>Dependent Variable</th>
<th>Variables Entered</th>
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<th>Beta</th>
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<td>.016</td>
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**$p < .01$ ***$p < .001$

Note. ATG-S = Attraction to Group – Social; ATG-T = Attraction to Group – Task; GI-T = Group Integration – Task; GI-S = Group Integration – Social

Table 4.7: Regression of success on cohesion variables
Research Question 5

Research question five examined the relationship between perceived leadership behaviors and satisfaction. A multiple linear regression found that the four leadership dimensions combined to account for 20.4% of the variance in athlete satisfaction $F(4, 140) = 10.21, p < .001$. Both Training and Leadership ($B = .81, SE = .37; p = .032$) and Positive Feedback ($B = .83, SE = .25; p = .001$) were found to make unique and significant contributions to the variance in satisfaction. Social Support and Democratic Behavior did not significantly contribute to the variance. Further data is provided in Table 4.8.

<table>
<thead>
<tr>
<th>Dependent Variable Entered</th>
<th>Variables</th>
<th>$R^2$</th>
<th>ADJ $R^2$</th>
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<th>Beta</th>
<th>$B$</th>
<th>$SE$</th>
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<td>.372</td>
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<td>3.302**</td>
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</table>

* $p < .05$  ** $p < .01$  *** $p < .001$

Note. T&I = Training and Instruction; SS = Social Support; DB = Democratic Behavior; PF = Positive Feedback

Table 4.8: Regression of satisfaction on leadership variables
Research Question 6

Research question six addressed the relationship between team cohesion and satisfaction. A multiple linear regression analysis was run to determine if there was a significant relationship between the cohesion dimensions and satisfaction of athletes. The analysis revealed that cohesion explained 44% of the variance in satisfaction, $F(4, 140) = 4.08, p = .004$. Individually, three of the four dimensions contributed uniquely to the variance: Attraction to Group – Social ($B = .36, SE = .12; p = .004$); Attraction to Group – Task ($B = .23, SE = .10; p = .018$); and Group Integration – Task ($B = .44, SE = .14; p = .002$). The remaining dimension, Group Integration – Social, was found not to contribute significantly to the variance in satisfaction. Further data is provided in Table 4.9.

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Variables Entered</th>
<th>$R^2$</th>
<th>ADJ $R^2$</th>
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<th>$B$</th>
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* $p < .05$  ** $p < .01$  *** $p < .001$

Note. ATG-S = Attraction to Group – Social; ATG-T = Attraction to Group – Task; GI-T = Group Integration – Task; GI-S = Group Integration – Social

Table 4.9: Regression of satisfaction on cohesion variables
Research Question 7

For research question seven, a multivariate analysis of variance (MANOVA) was run to examine the relationship between the perceived leadership behaviors of men’s and women’s teams. The four leadership dimensions were set as dependent variables, with gender as the lone independent variable. The MANOVA revealed a significant difference between males and females on the leadership dimensions, $F(4, 140) = 4.31, p = .003$, Wilks’ Lambda = .89, partial $\eta^2 = .11$. Each variable was found to have a significant difference as well: Training and Instruction, $F(1,145) = 8.08, p = .005$, partial $\eta^2 = .05$; Social Support, $F(1,145) = 9.94, p = .002$, partial $\eta^2 = .07$; Democratic Behavior, $F(1,145) = 16.97, p < .001$, partial $\eta^2 = .11$; Positive Feedback, $F(1,145) = 6.12, p = .015$, partial $\eta^2 = .04$. An inspection of the mean scores indicated that males rated each leadership behavior higher than their female counterparts. See Table 4.10 for a complete detail of the means and standard deviations for gender on each dimension.
<table>
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*Note.* Items measured on 5-point scale.

Table 4.10: Male and female respondents’ mean scores of leadership behaviors

*Research Question 8*

For research question eight, a MANOVA was run to determine if there was a significant difference between the perceived cohesion on men’s and women’s teams. The MANOVA revealed no significant difference between males and females on cohesion, $F(4, 140) = 1.05, p = .386$; Wilks’ Lambda = .971. See Table 4.11 for a complete detail of the means and standard deviations for gender on each dimension.
Table 4.11: Male and female respondents’ mean scores of cohesion dimensions

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<td></td>
<td>1.83</td>
<td>1.25</td>
</tr>
<tr>
<td>Attraction to Group – Task</td>
<td>6.22</td>
<td>6.52</td>
</tr>
<tr>
<td></td>
<td>2.02</td>
<td>1.70</td>
</tr>
<tr>
<td>Group Integration – Task</td>
<td>6.25</td>
<td>6.73</td>
</tr>
<tr>
<td></td>
<td>1.43</td>
<td>1.38</td>
</tr>
<tr>
<td>Group Integration - Social</td>
<td>6.61</td>
<td>6.92</td>
</tr>
<tr>
<td></td>
<td>1.78</td>
<td>1.46</td>
</tr>
</tbody>
</table>

Note. Items measured on a 9-point scale.

Research Question 9

Research question nine explored the potential differences in perceived cohesion between starters and non-starters. A MANOVA was used to examine potential differences. The results indicated a significant difference between starters and non-starters on the four leadership dimensions, $F(4, 139) = 7.31, p < .001$, Wilks’ Lambda = .83, partial $\eta^2= .17$. A follow-up analysis revealed only Attraction to Group – Task had a significant difference between starters and non-starters: $F(1,142) = 12.87, p < .001$, partial $\eta^2= .08$. An inspection of the mean scores indicated that starters rated Attraction to Group – Task higher ($M = 7.07, SD = 1.70$) than non-starters ($M = 5.99, SD = 1.79$). See Table 4.12 for a complete detail of the means and standard deviations for player status on each dimension.
Table 4.12: Starters’ and non-starters’ mean scores of cohesion dimensions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Starters</th>
<th></th>
<th>Non-Starters</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
<td>$M$</td>
<td>$SD$</td>
</tr>
<tr>
<td>Attraction to Group – Social</td>
<td>7.48</td>
<td>1.42</td>
<td>7.24</td>
<td>1.55</td>
</tr>
<tr>
<td>Attraction to Group – Task</td>
<td>7.07</td>
<td>1.70</td>
<td>5.99</td>
<td>1.79</td>
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<td>Group Integration – Task</td>
<td>6.51</td>
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<tr>
<td>Group Integration - Social</td>
<td>6.93</td>
<td>1.48</td>
<td>6.75</td>
<td>1.65</td>
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</tbody>
</table>

*Note.* Items measured on a 9-point scale

Research Question 10

The tenth research question examined if there was a significant difference in perceived leadership behaviors between starters and non-starters. A MANOVA was run to determine if there was any significant difference. Results indicated that there were no significant differences between starters and non-starters on perceived leadership behavior, $F(4,139) = .35$, $p = .843$, Wilks’ Lambda = .99. Means and standard deviations can be found in Table 4.13.
Table 4.13: Starters’ and non-starters’ mean scores of leadership dimensions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Starters</th>
<th></th>
<th>Non-Starters</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Training and Instruction</td>
<td>3.95</td>
<td>.64</td>
<td>3.87</td>
<td>.65</td>
</tr>
<tr>
<td>Social Support</td>
<td>3.52</td>
<td>.71</td>
<td>3.40</td>
<td>.71</td>
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<td>Democratic Behavior</td>
<td>3.16</td>
<td>.81</td>
<td>3.03</td>
<td>.64</td>
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<tr>
<td>Positive Feedback</td>
<td>3.78</td>
<td>.83</td>
<td>3.66</td>
<td>.88</td>
</tr>
</tbody>
</table>

Note. Items measured on a 5-point scale.

Research Question #11

The eleventh research asked if gender had a significant effect on the leadership – cohesion relationship. Sixteen hierarchical multiple regressions were used to determine if there was a significant difference between any of the dimensions based on gender. Because of the high number of analyses, a significance level of \( p = .003 \) was set (i.e., \(.05/16\)). Of all the relationships, only the interaction of gender and Training and Instruction on Attraction to Group – Social was found to be significant, \( B = .723, SE = 1.90, \beta = 1.881, p < .001; \) Step 1, \( \Delta R^2 = .129, F \) Change = 10.47; Step 2, \( \Delta R^2 = .081, F \) Change = 14.43 (Table 4.14). With both genders, the Training & Instruction and Attraction to Group – Social relationship was positive. The difference is found in just how much each gender was affected; Training and Instruction affected Attraction to Group – Social more for men than it did for women. In other words, men rely more on
Training and Instruction behaviors to facilitate their Attraction to Group – Social. This significant interaction is shown in Figure 4.1.

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>R²</th>
<th>ADJ R²</th>
<th>ΔR²</th>
<th>Sig</th>
<th>F Change</th>
<th>B&lt;sup&gt;a&lt;/sup&gt;</th>
<th>β&lt;sup&gt;a&lt;/sup&gt;</th>
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<tbody>
<tr>
<td>1</td>
<td>Gender</td>
<td>.129</td>
<td>.116</td>
<td></td>
<td>10.471**</td>
<td></td>
<td>-3.130</td>
<td>-2.039</td>
</tr>
<tr>
<td></td>
<td>Training and Instruction (T&amp;I)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Gender x T&amp;I</td>
<td>.209</td>
<td>.193</td>
<td>.081</td>
<td>.000</td>
<td>14.425***</td>
<td>.723</td>
<td>1.881</td>
</tr>
</tbody>
</table>

***p < .001  

*Note.*<sup>a</sup> = Coefficients from second step

Table 4.14: Regression of gender and Training and Instruction on Attraction to Group – Social.
Figure 4.1: Interaction between Training and Instruction and Gender with Attraction to Group – Social as the dependent variable
CHAPTER 5

DISCUSSION

The primary purposes of this study were to (a) examine and compare the perceptions of athletes and head coaches on the perceived leadership style of coaches in Division III basketball programs; (b) explore the relationship between perceived leadership behaviors and team cohesion; (c) explore perceived leadership behavior’s relationship with success; (d) explore cohesion’s relationship with success; (e) explore leadership behavior’s relationship with satisfaction; (f) explore perceived cohesion’s relationship with satisfaction; (g) explore perceived leadership behavior’s relationship with gender; (h) explore perceived cohesion’s relationship with gender; (i) explore perceived cohesion’s relationship with player status (starters and non-starters); (j) explore leadership behavior’s relationship with player status (starters and non-starters); and (k) explore gender’s impact on the leadership – cohesion relationship. A discussion of the results will be presented in the above format. Finally, the chapter concludes with sections on practical implications and recommendations for future research.
**Scale Means**

In this study, the Leadership Scale for Sports (LSS) revealed that coaches rated Positive Feedback ($M = 4.23$, $SD = .60$) as their most dominant behavior, followed by Training and Instruction ($M = 4.20$, $SD = .48$), Social Support ($M = 3.72$, $SD = .53$), and Democratic Behavior ($M = 3.02$, $SD = .55$). Athletes scored their coaches as displaying the highest amount of Training and Instruction behaviors ($M = 3.91$, $SD = .65$), followed by Positive Feedback ($M = 3.71$, $SD = .65$), Social Support ($M = 3.45$, $SD = .71$), and Democratic Behavior ($M = 3.08$, $SD = .71$). These means are congruent with the findings of Riemer and Toon (2001) who found that athletes in variable environments who are task dependent will report higher levels of Training and Instruction and Positive feedback. The current findings also fall in line with Lacy and Goldston’s (1990) study which stated that a dominant function of coaches is giving instruction (Training and Instruction) and encouragement (Positive Feedback).

In this study, athletes rated Attraction to Group – Social the highest ($M = 7.33$, $SD = 1.50$), followed by Group Integration – Social ($M = 6.80$, $SD = 1.59$), Group Integration – Task ($M = 6.54$, $SD = 1.42$), and Attraction to Group – Task ($M = 6.41$, $SD = 1.83$). Ntoumanis and Aggelonidis (2004) found the elite teams (professional) scored higher on the task dimensions of cohesion than did the regional level (comparable to college level), who scored the social dimensions higher. This study supports these claims.

**Coach and Athlete Leadership Perceptions**

Research question one examined the difference between coach and athlete perceptions of head coach leadership behaviors. Athlete means were subtracted from
head coach means to find a difference score. A one sample \( t \)-test revealed significant differences on three of the four leadership dimensions: Training and Instruction \((M = .34, SD = .78)\), Social Support \((M = .27, SD = .89)\), and Positive Feedback \((M = .54, SD = .99)\). In other words, head coaches and athletes held significantly different opinions on the amount of the specific leadership behavior being displayed. The positive means indicate that head coaches scored the dimensions higher than the athletes in all three behaviors. Assuming coaches consciously act certain ways when interacting with their athletes, it is possible that they are not as effective as they believe themselves to be at demonstrating a particular behavior. They may believe they are “Always” giving their athletes positive feedback because they have to tend to 14 individuals. On Monday, the coach may give Positive Feedback to two of his athletes, yet the other twelve see or hear none. In order for an athlete to rank their coach as “Always” giving Positive Feedback, the coach would have to tend to her individually every day, not her teammates. In other words, individual athletes may only see a specific behavior “Occasionally”, while the coach sees himself as behaving that same way “Always”, just because he has to deal and interact with so many individuals.

The higher coaches’ scores could also be due to the fact that they knew they were participating in a study about leadership behaviors. It is possible that, subconsciously (or not), they rated their scores higher to portray themselves in a more positive light. Essentially, coaches could have ranked themselves higher in all areas because they associate a higher score with being a better coach. In other words, Coach Smith may realize he only gives Social Support to his team members “Occasionally” (or a 3 on this
scale), but because he knows that he is being evaluated on his leadership behaviors, he
will circle the “Often” (or 4), because he believes this makes him look like a better coach.

The Leadership – Cohesion Relationship

Through four multiple linear regressions it was revealed that leadership had a
significant relationship with all four dimensions of cohesion. Results indicated that
leadership behaviors accounted for variances up to 32.1% (Attraction to Group - Task).
In the other task dimension, Group Integration - Task, leadership accounted for the
second largest variance, 25.9%. Leadership’s relationship with the two social dimensions
accounted for lower amounts of variance with Attraction to Group – Social at 13.7%, and
Group Integration - Social at 7.2 %. These results follow suit with Shields and
colleagues’ (1997) research, which indicated that leadership behaviors had the strongest
relationship with the task dimensions of cohesion. They suggest that task cohesion more
closely relates to leadership behaviors than social cohesion because coaches of
competitive teams tend to be more focused on task-related issues.

In the strongest relationships between leadership and cohesion (which happened
to be the two task dimensions), Training and Instruction and Positive Feedback accounted
for the majority of the variance in Attraction to Group – Task, while Training and
Instruction and Social Support accounted for the variance in Group Integration – Task.
This is partially supported by Shields et al. (1997) and Westre and Weiss (1991) as they
suggest that Training and Instruction, Social Support, Positive Feedback, and
Democratic Behavior are the leadership behaviors that foster high task cohesion. This
study agrees with the first three behaviors mentioned, but failed to show that Democratic
Behavior had a significant relationship with any of the cohesion dimensions. Training and Instruction is considered to be one the more task-oriented leadership behaviors (Westre & Weiss, 1991), so its strong relationships to the task cohesion variables are expected. These findings suggest that coaches shouldn’t necessarily spend their time and effort acting in a Democratic way, because at this level of sport, it is apparent that the other three behaviors are more effective in changing cohesion.

Another finding of interest was that of Social Support’s significant negative relationships with the Group Integration dimensions. This could indicate that Social Support behavior from the coach is hindering the group’s ability to interact and function well as a team. Perhaps this is an indication of the need or desire for an assistant coach to exhibit these behaviors. It is possible that athletes don’t respond well to their head coach being socially supportive because they only see them as a sort of “taskmaster”, who displays behaviors geared towards improving skills and approaches to the game on an individual basis. More so, it is conceivable that athletes rely on each other for Social Support, and therefore, it is not needed from their head coach.

Leadership and Success

A multiple linear regression revealed that there was a significant relationship between leadership and success, explaining 10.6% of the variance. Interestingly, Democratic Behavior was the only behavior to make a significant and unique contribution to the variance in success. The results indicated that as Democratic Behavior increased, success (winning percentage) decreased. Westre and Weiss (1991) had
different findings, revealing that teams with higher success perceived their coach as displaying more Positive Feedback and Democratic Behavior.

Similar to the current study, Jambor and Zhang’s (1997) research found that lower levels of competition, like high school or recreational sports, report higher levels of Democratic Behavior than college athletes, who report higher Training and Instruction behaviors. In relation to success, this could indicate that because college athletes are competitive in nature, their focus is more on winning. Democratic Behavior calls for increased input from the athletes. Perhaps at the collegiate level, where winning is the one of the first priorities, athletes need a coach who has his or her own ideas, and is confident in his or her decisions, to be successful. It is also possible that it has nothing to do with the athletes, and everything to do with the coach. Collegiate coaches may just be the types of individuals who thrive in the autocratic-type environment. It could be that the coaches who are cut out to be successful at the Division III collegiate level are not those that exhibit Democratic Behavior. Another explanation is that successful programs have a head coach who delegates the Democratic Behaviors to an assistant coach. Perhaps it is essential to have a coaching staff that balances all forms of leadership in order to be successful.

Cohesion and Success

A multiple linear regression revealed that cohesion was significantly related to success, explaining 15.8% of the variance. Group Integration – Task made a significant and unique contribution to the variance explained. These findings are similar to those of Carron et al. (2002), Mullen and Copper (1994), and Widmeyer et al. (1993) who found
that there was a significant relationship between cohesion and success. While Widmeyer and colleagues’ results indicated that Group Integration – Task had the most significant relationship to success, Carron and associates found that Attraction to Group – Task was the dimension that explained the most variance. What is clear from these studies is that task dimensions of cohesion are attributed to success more than the social dimensions.

Task cohesion’s relationship to success could be due to the nature of success itself. A team needs to be functioning optimally and completing tasks better than the opposing team in order to win. Therefore, it is of great importance that a team not only masters individual tasks, but is on the same page as a group. Social cohesion, at this level of competition, may not be as important to success because the athletes may be so focused on winning that they are able to put aside any social conflicts or rifts in the team to solely focus on the task at hand. While social cohesion may enhance other aspects of an athlete’s experience, it may only be seen and valued as an added bonus in the quest for success.

Although gender’s role in the cohesion – success relationship was not tested in this study, it is potentially an area that merits further research. Previous studies have had differing results regarding the interaction, with some indicating that there is no difference between men’s and women’s team cohesion and success relationships (Carron et al., 2002), while others have found that events that could contribute to a loss in cohesion might be more detrimental to team success in female teams (Widmeyer et al., 1985).

One noteworthy aspect of the cohesion – success relationship is the reciprocity, as mentioned in Chapter 2. Boone and Beitel (1997) also support this notion, stating that
cohesion may influence success, but it is very possible that success influences cohesion as well. It is important to view this relationship in both directions. One must keep in mind that the results of this study do not take into account the directionality of the relationship. It is suffice to say that if a team is cohesive, they are more apt to attain their goals, and thus be successful. It then can also be assumed that if a team is successful, athletes may be in a better mood, happier with the situation and, therefore, may work harder at establishing team cohesion because they might realize the team’s potential.

**Leadership and Satisfaction**

Research question five found that leadership is significantly related to satisfaction, explaining 20.4% of the variance. This study is congruent to Riemer and Chelladurai’s (1995) work which stated that Training and Instruction and Positive Feedback make significant and unique contributions to satisfaction. They also explained that these two leadership behaviors (Training and Instruction and Positive Feedback) are situational requirements, while the other behaviors are attuned to member preferences. In other words, Training and Instruction and Positive Feedback are more task related, and focus more on the improvement of individuals’ skills. These findings could be directly related to the fact that athletes at the collegiate level expect and want to win and/or improve their game. If they accomplish these tasks, which are usually addressed by both Training and Instruction and Positive Feedback, then they are more likely to be satisfied.

Although not significant, both Social Support and Democratic Behavior had negative relationships with satisfaction. Since Social Support and Democratic Behavior had negative relationships with success as well, it is possible that athletes at this level of
competition equate success with satisfaction. Perhaps athletes associate Social Support and Democratic Behavior with being unsuccessful, and therefore, are not as satisfied. It is also conceivable that athletes just do not enjoy these behaviors coming from their head coach. It is possible that they expect to see these behaviors from assistant coaches or other teammates and are not satisfied when (or if) these behaviors are displayed by their head coach.

Cohesion and Satisfaction

Out of all the interactions between the variables in this study, cohesion’s relationship with satisfaction was by far the largest, explaining 44% of the variance. Attraction to Group – Social, Attraction to Group – Task, and Group Integration – Task each made a significant unique contribution to the relationship. Spink’s (1995) research examined, among other things, intention to return to teams and cohesion. His findings indicated that intention to return was significantly related to Attraction to Group – Social, which is in line with this study. If an athlete is satisfied, they are more likely to return to a team than if they were not. Both Spink’s study and the current research point to Attraction to Group – Social as an indicator of satisfaction. Similarly, Steinhardt, Dolbier, Gottlieb, and McCallister (2003) found that cohesion is negatively related to job stress and conflict, which usually go hand in hand with dissatisfaction. In other words, the happier or more satisfied athletes are with their surroundings, the more cohesive the unit.

Similar to the relationship between cohesion and success is the relationship between cohesion and satisfaction. Due to the circular nature of the association, one must always consider both directions of the relationship. For example, if an athlete is on a team
that works together well, strives towards a common goal, and with whom he/she feels very comfortable, chances are that an individual athlete will feel satisfied with his/her experience. From the other direction, if athletes are happy with their playing time, winning games, reaching their individual goals and having fun outside of their sport together, it is more likely that they will form a cohesive unit. Findings by Widmeyer and Williams (1991) revealed that the best single predictor of cohesion was overall satisfaction. Kamphoff and Gill (2005) also found that satisfaction is significantly related to cohesion.

One interesting finding of this relationship was that although cohesion made up almost half the variance in satisfaction, Group Integration – Social did not make a contribution. A possible explanation for this is that the social cohesion of the group, which is what Group Integration – Social is, may not have any bearing on an athlete’s individual view of satisfaction. In other words, Group Integration – Social is measuring the perceived social cohesion at the group-level, while the satisfaction item asked how satisfied the individual was overall. These results indicate that being socially cohesive as a group does not have any impact on an individual’s satisfaction level, while the individual’s Attraction to Group – Social (how socially accepted an athlete is within their team) does. Perhaps, individuals only care (and are therefore satisfied) if they themselves are socially integrated and accepted within their team; they do not care if the team as a whole is socially cohesive.
Leadership and Gender

A MANOVA revealed a significant difference between genders on leadership behaviors. Each leadership behavior also saw a significant difference between genders. Male athletes rated each of the dimensions higher than their female counterparts. These findings are inconsistent with previous studies by Jambor and Zhang (1997) and Chelladurai (1990), who stated that there were no gender differences when it came to leadership perceptions. Lacy and Goldston (1990) revealed that encouragement (Positive Feedback) was exhibited more by women’s coaches than men’s coaches – which is the opposite of the present study. This study does however coincide with Riemer and Toon’s (2001) research, which indicated that there was a significant difference in perceived leadership behaviors between genders. They went even further by saying that female athletes might both prefer and perceive less Social Support behavior from a female coach because of the lesbian stereotype that is often associated with competitive female athletes.

Several potential explanations should be kept in mind when viewing these results. First, it is very possible that the differences found between genders could have to do with head coach gender, not athlete gender. Various studies (Jambor & Zhang, 2003; Millard, 1996; Riemer & Toon, 2001) have indicated that this is the case. Further research is necessary in this area to truly delineate whose gender, the coach or athlete, has an impact on leadership behaviors. Furthermore, one possible reason for females ranking all of the leadership behaviors of their head coach lower than males did is the fact that coaches of females might designate more leadership to their assistants. It is possible that coaches of...
women feel that the athletes on their teams need that extra stimulation and/or support that they alone cannot provide. Therefore, they delegate their assistants to help give the extra support that they feel their athletes need. This being said, further research involving the leadership behaviors of assistant coaches should be done as well.

Cohesion and Gender

In this study, there was no significant difference in cohesion between men’s and women’s teams. Some researchers have indicated that men and women differ in their perceptions and rating of cohesion dimensions (Widmeyer et al., 1985). The current study does not support these claims. One possible reason for this is the level of play at which this study examined. Collegiate athletes participate because they are willing to work hard to improve their skills and win games. Perhaps the competitive nature at this level of athletics nullifies any gender differences that may have existed at lower levels of play. In other words, men and women Division III college athletes may not view cohesion differently because they have the same goals in mind.

Carron et al. (2002) state that although genders do not generally differ on the degree to which they are cohesive, cohesiveness with in female teams is more strongly associated with performance. They suggest that “events that contribute to a loss of cohesiveness might be expected to be more detrimental to team success in female teams” (p. 183). In other words, on women’s teams there might be a stronger relationship between cohesion and success than on men’s teams. This relationship should be examined further in future studies.
Cohesion and Player Status

A MANOVA revealed a significant difference on cohesion between starters and non-starters. Individually, Attraction to Group – Task was found to be significantly different, with starters rating Attraction to Group – Task higher than non-starters. This is congruent to Westre and Weiss’ (1991) findings which indicated that starters scored Attraction to Group – Task higher as well. Heuze, Raimbault, and Fontayne (2006) explained that because starters have high involvement in the team functioning and contribute more statistically in games, they are more likely to have a higher perception of team cohesion – especially the task related components. On the other hand, non-starters may feel as though they are not contributing as much as they think they could or should, and therefore score cohesion as being lower.

Although not significant, starters rated both Attraction to Group – Social and Group Integration – Social higher than non-starters. This indicates that starters not only feel more attuned individually to the social aspects of the group, but believe the group as a whole is more socially cohesive. This could be that because starters feel pretty good about where they stand with the team socially, they view the social cohesion of the team as whole more positively.

Leadership and Player Status

This study found no significant differences on leadership behaviors between starters and non-starters. These findings are similar to Westre & Weiss’s (1991) research. This indicates that head coaches do not change their behavior based on a person’s status on the team. If a starter has an issue and goes to the coach for help, the coach would treat
the starter just the same as if a non-starter had asked for help. This being said, it is possible that coaches need to treat their athletes differently based on their needs. While one player may be more adept at shooting foul shots and needs little instructional attention, a poor foul shooter may need a significantly greater about of attention regarding the proper technique. Often times, starters exhibit stronger skills and are better than non-starters. In these cases, non-starters may need the extra Training and Instruction to meet the desired skill level.

Leadership, Cohesion, and Gender

Sixteen multiple linear regressions were used to determine if gender made any significant difference in the leadership-cohesion relationships. The analyses revealed that gender only made a significant difference in the relationship of Training and Instruction and Attraction to Group – Social. The females’ rated Attraction to Group – Social only slightly more as Training and Instruction behaviors increased, while males rated Attraction to Group – Social as drastically higher as Training and Instruction increased. The results indicate that the women’s perception of Attraction to Group – Social is relatively high regardless of how strong the training and instruction is. Men’s Attraction to Group – Social seems to be more affected by an increase of their coach’s Training and Instruction behavior. It is possible that women are better at facilitating their own social cohesion, while men rely on their coach’s Training and Instruction behavior bring the group together so that they can take the step to be social cohesive.

What could be more important about the results of these regressions was the fact that only one of the sixteen was found to be significant. This indicates that on the vast
majority of the relationships between leadership behaviors and cohesion dimensions, there is no difference between genders. It is possible that male and female athletes at this level of competition are very similar. Each gender seems to experience the same general interaction between head coach leadership behaviors and team cohesion. Perhaps this is indicative relatively similar goals and objectives between each gender. In other words, a women’s team may put just as much emphasis on winning a game as a men’s team would, and thus, their cohesion is affected in the same way by their head coach.

Practical Implications

This study has several implications for collegiate athletic programs, specifically coaches. For starters, this study revealed that head coaches and athletes did not always agree with each other on the type of leadership behavior being displayed. Head coaches in this study rated all of their behaviors higher than their athletes did. This could indicate a possible disconnect between the two groups, where the head coach is not as effective in using those techniques as they thought they were. To remedy this, coaches need to better communicate with their athletes to find out what they are lacking in regards to the leadership style they desire. However, it may take the coach more than just asking athletes what they prefer, because athlete preferences can be different than actual need. Talking to athletes and observing their behaviors can help a coach identify where leadership behaviors can be adjusted to address an issue.

An interesting finding from this study was that Democratic Behavior had a significant negative relationship with success. Seeing that collegiate athletics are competitive, and a major goal of a team is to win, coaches need to recognize that
Democratic Behavior could hurt the success of the team. Athletes at this level of play are looking for coaches who have a vast knowledge of the game and are confident in their abilities to make decisions on their own.

In this study, it was found that starters rated cohesion, specifically Attraction to Group – Task, higher than non-starters. Because Attraction to Group – Task indicates how well an individual feels they contribute to their team’s tasks and goals, this study revealed that starters felt as though they were contributing more individually to the group’s task more than non-starters. This is important for coaches to recognize because, as this study found, cohesion is related to both success and satisfaction. Therefore, if the non-starters don’t feel as though they are contributing to the group as much, they are more likely to be dissatisfied, which can only hurt the team as a whole. Coaches should make the extra effort to ensure that all athletes feel as though they are contributing to the team. For example, a coach may say to a non-starter, “I need you to go out there and get three rebounds for me today”. This will show the athlete that the coach both needs and expects something of him, giving the athlete something to contribute to the team. Another finding that ties into this is the fact that there was no significant difference in leadership behavior perceptions between starters and non-starters. It is very possible that these two groups of athletes need different leadership behaviors, and should be addressed on an individual basis by the coach.

Lastly, coaches must keep in mind the impact they have on team cohesion. This research, as well as others (Heuze et al., 2006; Ryska et al., 1999; Turman, 2003) has found that coaches have a large impact on team cohesion, especially task cohesion. This
can be done easiest through task behaviors such as Training and Instruction and Positive Feedback. Luckily for coaches, task cohesion was found to be significantly related to success, because they will be able to manipulate task cohesion more easily than social cohesion. Coaches can address the task cohesion by defining player roles, working on specific skill sets, and laying out clear and measurable goals which give each player the opportunity to make unique contributions to the team. While it is fairly easy for coaches to lay the groundwork and foundation for task cohesion, to impact social cohesion would be more difficult. This is because social cohesion more often occurs “off the court”. The coach would have to spend more time in social settings with his or her athletes. It is not common, nor normal, to see a coach going to parties and hanging out with the team in the off-season. Even if a coach attempted these things, it is unlikely that it would be welcomed by the athletes.

This being said, it is still important that coaches attempt to foster social cohesion because of its positive relationship with satisfaction. While being directly involved in the social cohesion of a team seems far fetched for a coach, it is possible for coaches to foster it by giving opportunities for his or her athletes to get to know one another better. One example would be organizing a non-sport related activity for the team, like participating in a ropes challenge course, to help bring teammates closer together. Coaches can also address social cohesion by making sure athletes have a personal sense of belonging. A coach should go the extra mile to make sure athletes’ needs are being satisfied. This can be done by learning something personal about an athlete, and appreciating what they have to offer to the team (Ryska et al., 1999).
Recommendations for Future Research

While this study attempted to answer some of the questions regarding leadership and cohesion in collegiate teams, more studies are needed to further examine this topic. Based on the results of this study and from a review of literature, the following recommendations for future research are made.

First and foremost, it is necessary to examine and compare leadership and cohesion in all levels of sports in order to fully understand the team dynamic at a given level of competition. This study, for example, cannot be generalized to Division I athletes because those athletes may have completely different wants, needs, and reasons for playing. It would be interesting to investigate the leadership behaviors and strength of cohesion at each level in teams.

Also, other sports need to be studied, as a basketball team has completely different characteristics than a tennis or football team. Past research has examined leadership and cohesion in both team and individual sports, but none in recent years. A comparison of both types of sports would bring the team dynamic to the forefront, specifically what impact cohesion has on individual sports (i.e., tennis, track and field, diving) versus team sports (i.e., basketball, football, soccer).

As mentioned earlier this chapter, a few previous studies have touched upon the possibility of the gender of coaches making a difference in leadership behaviors. This would be worthwhile to look into, considering some leadership behaviors might be more often displayed in a coach of a specific gender. In other words, leadership behavior might not have anything to do with the needs of the team, but of the inherent personality of a
coach. Further research is needed to examine just how much a coach’s gender affects this dynamic.

Another form of research which can be used to explore the leadership – cohesion dynamic is of the qualitative variety. A qualitative study would allow a researcher to truly understand what an athlete or coach is feeling, without having to match their thoughts with specific questions in a questionnaire. This would be especially helpful when examining cohesion because of its dynamic nature. Also, the reciprocal relationship that cohesion has with both satisfaction and success would be easier to delineate if a researcher had the opportunity to probe further when the subject came up.

Lastly, it is important that some research is dedicated to assistant coach leadership behaviors and the role they play on a team. It should be acknowledged that some head coaches defer to their assistants in some cases, expecting them to be the ones to handle specific situations. Athletes may go to their assistant coach for more social support, and may look to their head coach for their instructional needs. Future research should look at the coaching staff as a whole when examining leadership behaviors.
LIST OF REFERENCES


NCAA. (2007). Composition & sport sponsorship of the NCAA. Retrieved on July 30, 2007 from


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APPENDIX A

PRENOTIFICATION EMAIL TO COACHES
Coach

This email is intended to introduce myself and a research project in which you have been selected to participate. My name is Corinne Farneti and I am a Ph.D. candidate in Sport Management at Ohio State University. Along with Dr. Brian Turner from Ohio State University, I am conducting research for my dissertation on head coach leadership behavior and its effect on team cohesion. This project will specifically focus on Division III basketball programs.

**IF YOU WISH TO PARTICIPATE, PLEASE RESPOND TO THIS EMAIL AS SOON AS POSSIBLE WITH YOUR MAILING ADDRESS SO THE QUESTIONNAIRES CAN BE PROPERLY DELIVERED.**

The research packet will contain questionnaires for yourself and your team members. The completion of this questionnaire will take no longer than 10 minutes. By means of this brief introduction we are requesting that you kindly participate in this research project for which you have been chosen. Please note that participation in this study is voluntary and your non-participation will not be known to anyone. Your participation would, however, be greatly appreciated and is crucial to the success of this project. It will also help further the existing research on Division III athletics and team dynamics.

We thank you in advance for your time and assistance on this project. If you choose to participate, you can expect the packet containing the questionnaires and a more detailed description of the study to arrive in the next week. If you have any questions, please feel free to contact me.

Best Regards
APPENDIX B

REMINDER PRENOTIFICATION EMAIL TO COACHES
Dear Coach,

This email is intended to serve as a reminder about the research project in which you have been selected to participate. The research, which focuses on head coach leadership behaviors and team cohesion, will be completed by Corinne Farneti, a Sport Management PhD candidate, and Dr. Brian Turner (both of Ohio State University).

**IF YOU WISH TO PARTICIPATE, PLEASE RESPOND TO THIS EMAIL AS SOON AS POSSIBLE WITH YOUR MAILING ADDRESS SO THE QUESTIONNAIRES CAN BE PROPERLY DELIVERED.**

The completion of the questionnaire will take no longer than 10 minutes. By means of this brief introduction we are requesting that you kindly participate in this research project for which you have been chosen. Please note that participation in this study is voluntary and your non-participation will not be known to anyone. Your participation would, however, be greatly appreciated and is crucial to the success of this project. It will also help further the existing research on Division III athletics and team dynamics.

We thank you in advance for your time and assistance on this project. If you choose to participate, you can expect the packet containing the questionnaires and a more detailed description of the study to arrive in the next week. If you have any questions, please feel free to contact me.

Best Regards
APPENDIX C

COVER LETTER TO COACH
February 19, 2008

Dear Coach:

You have been previously notified about the study we are conducting that will examine leadership and cohesion in NCAA Division III basketball programs. This research project includes a questionnaire for both you (the head coach) and your players to complete. As a member of the Division III athletic community we are inviting you and your team to participate in a research study examining this area. Your input is critical in assisting with this current study.

This study will be conducted by Dr. Brian Turner and Corinne Farneti. Participation in this study is voluntary. You may withdraw from the study at any point without penalty and may refuse to answer any questions that make you feel uncomfortable. By completing this survey, you consent to participate. We also ask that no player under the age of 18 participate. Although participants receive no personal benefit or reward for their participation, your responses will contribute to the expanding knowledge on team dynamics. **It is anticipated the questionnaire will take no longer than 10 minutes to complete.**

Included in this packet is one questionnaire for you to complete, along with a questionnaire for each of your players. An envelope is provided for each questionnaire, to ensure anonymity and confidentiality. Please complete your questionnaire and mail it back in the provided postage-paid envelope. Please give the player questionnaires to a team captain to distribute to the other players. Upon completion, the players should seal their questionnaire in their individual envelopes and give them back to the captain who will seal them in the second provided postage-paid envelope. This envelope can then be mailed back to the researchers. Instructions are also included for the team captain.

Please be assured that your response will be kept confidential. There will be no means of linking responses back to the individual who completed the questionnaire. Upon receiving the returned questionnaires and analyzing the data, the researchers will keep the questionnaires in a locked cabinet at all times. The results of the study will not be linked to any individual or institution, and any discussion will be based only on group data. Please complete and return the questionnaires by **Thursday, February 28th.**

If you have any questions concerning your research rights at any time, contact either of the researchers listed below. Thank you for your participation.

Sincerely,

Corinne Farneti
Ph.D. Student
farneti.1@osu.edu
607-222-1986

Dr Brian Turner
Assistant Professor and Advisor
turner.409@osu.edu
614-247-8374
APPENDIX D

COVER LETTER TO ATHLETE
February 19, 2008

Dear Athlete:

Your coach has been previously notified about the study we are conducting that will examine leadership and cohesion in NCAA Division III basketball programs. This research project includes a questionnaire for the head coach and the athletes to complete. As a member of the Division III athletic community we are inviting you to participate in a research study examining this area. Your input is critical in assisting with this current study.

This study will be conducted by Dr. Brian Turner and Corinne Farneti. Participation in this study is voluntary. You may withdraw from the study at any point without penalty and may refuse to answer any questions that make you feel uncomfortable. By completing this survey, you consent to participate. We also ask that no player under the age of 18 participate. Although participants receive no personal benefit or reward for their participation, your responses will contribute to the expanding knowledge on team dynamics. It is anticipated the questionnaire will take no longer than 10 minutes to complete. Upon completion, please seal your questionnaire in the provided small envelope. Please return the sealed envelope to the team captain, who will then seal all envelopes in a larger, postage-paid envelope and place in the mail.

Please be assured that your response will be kept confidential. There will be no means of linking responses back to the individual who completed the questionnaire. Upon receiving the returned questionnaires and analyzing the data, the researchers will keep the questionnaires in a locked cabinet at all times. The results of the study will not be linked to any individual or institution, and any discussion will be based only on group data. Please complete and return the questionnaires by Thursday, February 28th.

If you have any questions concerning your research rights at any time, contact either of the researchers listed below. Thank you for your participation.

Sincerely,

Corinne Farneti    Dr Brian Turner
Ph.D. Student    Assistant Professor and Advisor
farneti.1@osu.edu    turner.409@osu.edu
607-222-1986    614-247-8374
APPENDIX E

TEAM CAPTAIN INSTRUCTIONS
Team Captain Instructions

Please give each member of the team a questionnaire and a small envelope. Instruct them to complete the questionnaire and seal it in their envelope. Upon completion, collect all questionnaires and place them in the larger postage-paid envelope. When finished, please seal and place in the mail.

** Those under the age of 18 should NOT complete the questionnaire**

Please be assured that your response will be kept confidential. There will be no means of linking responses back to the individual who completed the questionnaire. Upon receiving the returned questionnaires and analyzing the data, the researchers will keep the questionnaires in a locked cabinet at all times. The results of the study will not be linked to any individual or institution, and any discussion will be based only on group data. Please complete and return the questionnaires by Thursday, February 28th.

If you have any questions concerning your research rights at any time, contact either of the researchers listed below. Thank you for your participation.

Sincerely,

Corinne Farneti       Dr Brian Turner
Ph.D. Student       Assistant Professor and Advisor
farneti.1@osu.edu   turner.409@osu.edu
607-222-1986       614-247-8374
APPENDIX F

COACH QUESTIONNAIRE
Please provide any further information regarding recent events or issues that may influence the team members' responses on the leadership and cohesion questionnaire.

Exploring Leadership and Cohesion in Division III Basketball Programs

The Ohio State University
Sport Management Department

Thank you for your help!
PART 1—Leadership: On the following pages you will find statements describing a specific behavior that a coach may exhibit.

Please indicate your characteristic behavior by circling the appropriate number. There are no right or wrong answers. Your spontaneous and honest response is important for the success of the study.

<table>
<thead>
<tr>
<th>1 = Never, 2 = Seldom, 3 = Occasionally, 4 = Often, 5 = Always</th>
</tr>
</thead>
</table>

In coaching:

1. See to it that athletes work to capacity.  
   1  2  3  4  5

2. Ask for the opinion of the athletes on strategies for specific competitions.  
   1  2  3  4  5

3. Help athletes with their personal problems.  
   1  2  3  4  5

4. Compliment an athlete for good performance in front of others.  
   1  2  3  4  5

5. Explain to each athlete the techniques and tactics of the sport.  
   1  2  3  4  5

6. Help members of the group settle their conflicts.  
   1  2  3  4  5

7. Pay special attention to correcting athletes' mistakes.  
   1  2  3  4  5

8. Get group approval on important matters before going ahead.  
   1  2  3  4  5

9. Tell an athlete when he/she does a particularly good job.  
   1  2  3  4  5

10. Make sure that my function in the team is understood by all athletes.  
    1  2  3  4  5

Part 2—Demographics: Please respond to the following questions by printing the appropriate response or placing an X in the space provided.

1. Number of years total coaching experience: ________ Years

2. Number of years head coaching experience: ________ Years

3. Number of years with current institution: ________ Years

4. How many assistant coaches do you have on your staff? ________

5. How many players are on your team? ________

6. Age: ________ years

7. Gender:  Male ________  Female ________
1 - Never; 2 - Seldom; 3 - Occasionally; 4 - Often; 5 - Always

In coaching 1:

27. Ask for the opinion of the athletes on important coaching matters. 1 2 3 4 5
28. Encourage close and informal relations with athletes. 1 2 3 4 5
29. See to it that the athletes' efforts are coordinated. 1 2 3 4 5
30. Let the athletes work at their own speed. 1 2 3 4 5
31. Explain how each athlete's contribution fits into the total picture. 1 2 3 4 5
32. Invite the athletes to my home. 1 2 3 4 5
33. Give credit when it is due. 1 2 3 4 5
34. Specify in detail what is expected of athletes. 1 2 3 4 5
35. Let the athletes decide on plays to be used in a game. 1 2 3 4 5
36. Look out for the personal welfare of the athletes. 1 2 3 4 5
37. Instruct every athlete individually in the skills of the sport. 1 2 3 4 5
38. Let the athletes share in decision making. 1 2 3 4 5
39. See that an athlete is rewarded for a good performance. 1 2 3 4 5
40. Figure ahead on what should be done. 1 2 3 4 5
41. Encourage athletes to make suggestions for ways to conduct practices. 1 2 3 4 5
42. Do personal favors for the athletes. 1 2 3 4 5
43. Explain to every athlete what should be done and what should not be done. 1 2 3 4 5
44. Let the athletes set their own goals. 1 2 3 4 5
45. Express any affection felt for the athletes. 1 2 3 4 5
46. Expect every athlete to carry out one's assignment to the last detail. 1 2 3 4 5
47. Let the athletes try their own way even if they make mistakes. 1 2 3 4 5
48. Encourage the athlete to confide in me. 1 2 3 4 5
49. Point out each athlete's strengths and weaknesses. 1 2 3 4 5
50. Express appreciation when an athlete performs well. 1 2 3 4 5
51. Give specific instructions to each athlete on what should be done in every situation. 1 2 3 4 5
APPENDIX G

ATHLETE QUESTIONNAIRE
Exploring Leadership and Cohesion in Division III Basketball Programs

The Ohio State University
Sport & Exercise Management
PART 1—Leadership: On the following pages you will find statements describing a specific behavior that a coach may exhibit.

Please indicate the extent to which you agree with each statement by circling the appropriate number on the right hand side of each statement. Please note that you are rating your current head coach.

1—Never; 2—Seldom; 3—Occasionally; 4—Often; 5—Always

My head coach:

1. Sees to it that athletes work to capacity.
   1 2 3 4 5

2. Asks for the opinion of the athletes on strategies for specific competitions.
   1 2 3 4 5

3. Helps athletes with their personal problems.
   1 2 3 4 5

4. Compliments an athlete for good performance in front of others.
   1 2 3 4 5

5. Explains to each athlete the techniques and tactics of the sport.
   1 2 3 4 5

6. Helps members of the group settle their conflicts.
   1 2 3 4 5

7. Pays special attention to correcting athletes' mistakes.
   1 2 3 4 5

8. Gets group approval on important matters before going ahead.
   1 2 3 4 5

9. Tells an athlete when the athlete does a particularly good job.
   1 2 3 4 5

10. Makes sure that the coach's function in the team is understood by all athletes.
    1 2 3 4 5

Please provide any further comments on your head coach's leadership or your team's cohesion in the space below.

Thank you for your help!
Part 2—Demographics: Please respond to the following questions by printing the appropriate response or placing an X in the space provided.

1. Gender:
   - Male
   - Female

2. Year in school:
   - Freshman
   - Sophomore
   - Junior
   - Senior
   - Graduate Student

3. Age: ______ years

4. Please indicate your current status:
   - Starter
   - Non-Starter
   - Practice Player (not eligible for games)

5. Please indicate which category best describes your average playing time per game:
   - 0 - 5 minutes
   - 6 - 15 minutes
   - 16 - 30 minutes
   - 20 - 40 minutes

6. Are you a team captain? Yes ______ No ______

7. Approximately how many points per game do you average? ______

8. Approximately how many rebounds per game do you average? ______

9. Approximately how many assists per game do you average? ______

10. My head coach:
    1=Never; 2=Seldom; 3=Occasionally; 4=Often; 5=Always

11. Looks out for the personal welfare of the athletes.
    1 2 3 4 5

12. Instructs every athlete individually in the skills of the sport.
    1 2 3 4 5

13. Lets the athletes share in decision making.
    1 2 3 4 5

14. Sees that an athlete is rewarded for a good performance.
    1 2 3 4 5

15. Figures ahead on what should be done.
    1 2 3 4 5

16. Encourages athletes to make suggestions for ways to conduct practices.
    1 2 3 4 5

17. Does personal favors for the athletes.
    1 2 3 4 5

18. Explains to every athlete what should be done and what should not be done.
    1 2 3 4 5

19. Lets the athletes set their own goals.
    1 2 3 4 5

20. Expresses any affection felt for the athletes.
    1 2 3 4 5

21. Expects every athlete to carry out one's assignment to the last detail.
    1 2 3 4 5

22. Lets the athletes try their own way even if they make mistakes.
    1 2 3 4 5

23. Encourages the athlete to confide in the coach.
    1 2 3 4 5

24. Points out each athlete's strengths and weaknesses.
    1 2 3 4 5

25. Expresses appreciation when an athlete performs well.
    1 2 3 4 5

26. Gives specific instructions to each athlete on what should be done in every situation.
    1 2 3 4 5
1 - Never; 2 - Seldom; 3 - Occasionally; 4 - Often; 5 - Always

My head coach:

27. Asks for the opinion of the athletes on important coaching matters. 1 2 3 4 5
28. Encourages close and informal relations with athletes. 1 2 3 4 5
29. Sees to it that the athletes' efforts are coordinated. 1 2 3 4 5
30. Lets the athletes work at their own speed. 1 2 3 4 5
31. Explains how each athlete's contribution fits into the team picture. 1 2 3 4 5
32. Invites the athletes to his/her home. 1 2 3 4 5
33. Gives credit when it is due. 1 2 3 4 5
34. Specifies in detail what is expected of athletes. 1 2 3 4 5
35. Lets the athletes decide on plays to be used in a game. 1 2 3 4 5

14. Our team members have conflicting aspirations for the team's performance.
   1 2 3 4 5 6 7 8 9
   Strongly Disagree Strongly Agree

15. Our team would like to spend time together in the off-season.
   1 2 3 4 5 6 7 8 9
   Strongly Disagree Strongly Agree

16. If members of our team have problems in practice, everyone wants to help them so we can get back together again.
   1 2 3 4 5 6 7 8 9
   Strongly Disagree Strongly Agree

17. Members of our team do not stick together outside of practices and games.
   1 2 3 4 5 6 7 8 9
   Strongly Disagree Strongly Agree

18. Our team members do not communicate freely about each athlete's responsibilities during competition or practice.
   1 2 3 4 5 6 7 8 9
   Strongly Disagree Strongly Agree

19. I am satisfied with my experience as a whole.
   1 2 3 4 5 6 7 8 9
   Strongly Disagree Strongly Agree
7. I enjoy other parties more than team parties.
   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
   | Strongly Disagree | Strongly Agree |
8. I do not like the style of play on this team.
   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
   | Strongly Disagree | Strongly Agree |
9. For me this team is one of the most important social groups to which I belong.
   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
   | Strongly Disagree | Strongly Agree |

The following questions are designed to assess your perceptions of YOUR TEAM AS A WHOLE. Please CIRCLE a number 1 to 9 to indicate your level of agreement with each of the statements.

10. Our team is united in trying to reach its goals for performance.
    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
    | Strongly Disagree | Strongly Agree |
11. Members of our team would rather go out on their own than get together as a team.
    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
    | Strongly Disagree | Strongly Agree |
12. We all take responsibility for any loss or poor performance by our team.
    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
    | Strongly Disagree | Strongly Agree |
13. Our team members rarely party together.
    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
    | Strongly Disagree | Strongly Agree |

PART II—Calibration: This portion is designed to assess your perceptions of your athletic team. There are no right or wrong answers, so please give your first impression. Some of the questions may seem repetitive, but please answer ALL questions.

The following questions are designed to assess your feelings about YOUR PERSONAL INVOLVEMENT with this team. Please CIRCLE a number 1 to 9 to indicate your level of agreement with each statement.

1. I do not enjoy being a part of the social activities of this team.
   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
   | Strongly Disagree | Strongly Agree |
2. I am not happy with the amount of playing time I get.
   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
   | Strongly Disagree | Strongly Agree |
3. I am not going to miss the members of this team when the season ends.
   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
   | Strongly Disagree | Strongly Agree |
4. I am unhappy with my team’s level of desire to win.
   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
   | Strongly Disagree | Strongly Agree |
5. Some of my best friends are on this team.
   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
   | Strongly Disagree | Strongly Agree |
6. This team does not give me enough opportunities to improve my personal performance.
   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
   | Strongly Disagree | Strongly Agree |
APPENDIX H

COACH AND ATHLETE COMMENTS FROM QUESTIONNAIRE
**Coaches’ Comments from Questionnaire**

- Having only been at this institution 2 years, much of my answers are due to the fact that I don’t have anyone who is fully acclimated to this program. The trust/rapport isn’t quite there yet. Once I have upperclassmen who started with me as their coach, I would like to turn over more initiative, ownership to them as they make it their program and leave their mark on things. We just haven’t had the leadership under me yet (a lot of the reason – I’m told – the former coach left because a couple girls who were underclassmen made her life as a coach unpleasant). I did a lot of “cleaning house” and changing the culture. The players who also played for the former coach (Jrs & Srs now) have had trouble adjusting at times.

- We had cohesion problems last year for the first time in over a decade. We talked about changing the team culture and so far @ 17-3 we seem to have matured as a TEAM.

- Recent transfer out of this institution…Did not have many individual meetings with athletes this year to discuss specific roles of each person/athlete.

- Our athletes live together in a house off campus for almost 3 weeks during the January recess. I’m curious to know how individual players feel about these living arrangements and the effect it has on the team dynamic.

- We are a young squad. 10 freshmen and sophomores, so leadership has had to come from the staff more than usual. We have some players who still don’t understand how hard to get playing time is. I look forward to seeing your report!
Athletes’ Comments from Questionnaire

- Our team cohesion is great. We work hard and play hard...mainly for each other and our team. Our coach’s leadership doesn’t have the most positive impact on the team.

- Our coach’s leadership is weak in game situations. At the end of a game and we need to score, she really has no suggestions. She doesn’t do a good job of getting us “pumped up” before games. Don’t get me wrong, in some situations she is a good coach, but she definitely has her weaknesses. She is a young coach and could have used more experience at a lower level before coming to the college level. She once stated to us that we need to stop relying on our coaches to win. I thought that was not a leadership characteristic for a head coach. Thanks.

- I think he needs to worry about 1 game at a time instead of the “big” games. He is smart, but needs to use it more. Discipline could go up a notch!

- Coach is really dedicated and cares about us both on and off the court!! He always lets us know when we are doing good and most importantly when we can be doing better.

- I love my team! 😊

- Leadership = not so great. Cohesion = we work well together.

- She’s great…seriously. But she lets 1 player run wild on the court.

- He gives up on us easily in some situations.

- He is not assertive enough, especially in pressure situations.

- Our coach doesn’t work well when it comes to keeping our team together. He is not a person players can go to for honest answers and doesn’t provide helpful information about the sport. I also feel that he doesn’t trust my judgment and the judgments of players. I can’t play for a coach who doesn’t respect his players by being honest, reasonable, and willing to put himself on the line, and who is typically negative more than positive during games and practices.

- Good job.

- I love my team.

- Supportive fun, and teaches well.
• We have a great head coach and our team is unified and enjoys each other!

• I believe our team would be even more successful if we were closer as a team outside of basketball. Teams that have more team bonding seem to play better together as a whole, in my opinion.